MONTHLY LABORATORY NUMBER

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THE CANNER AND DRIED FRUIT PACKER

Vol. XXI. No. 8 CHICAGO, THURSDAY, SEPTEMBER 7, 1905. Whole No. 554

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Established 1892

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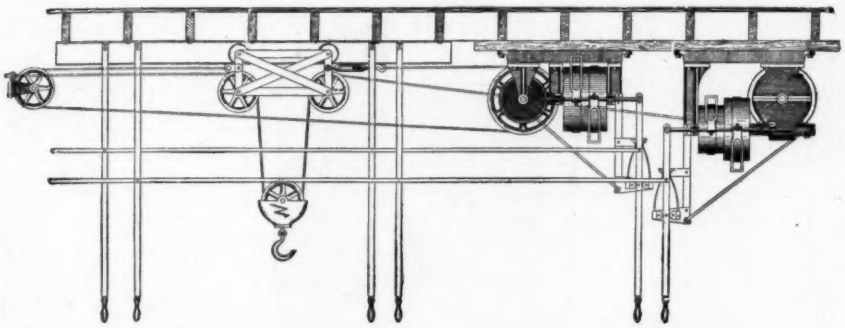
Power Hoist and Conveyor



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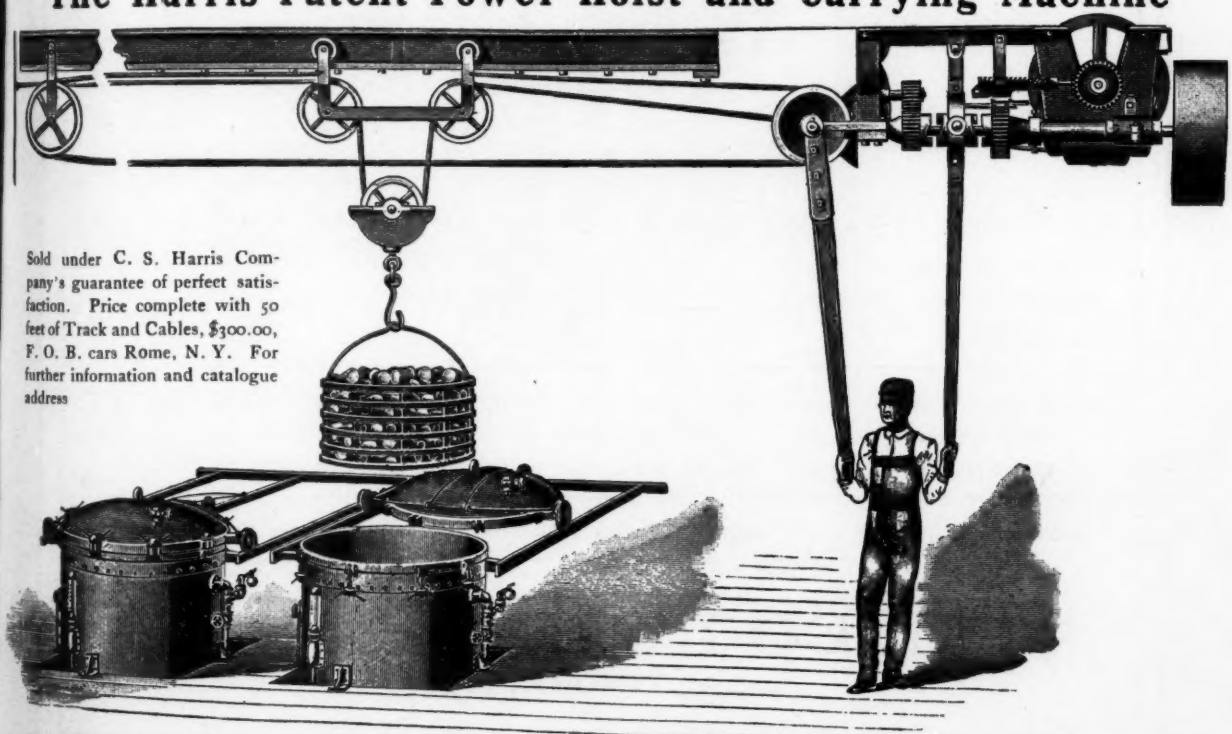
Sprague Canning Machinery Company,

Sole Owners and Manufacturers, **CHICAGO, ILLINOIS**

The Harris Patent Power Hoist and Carrying Machine



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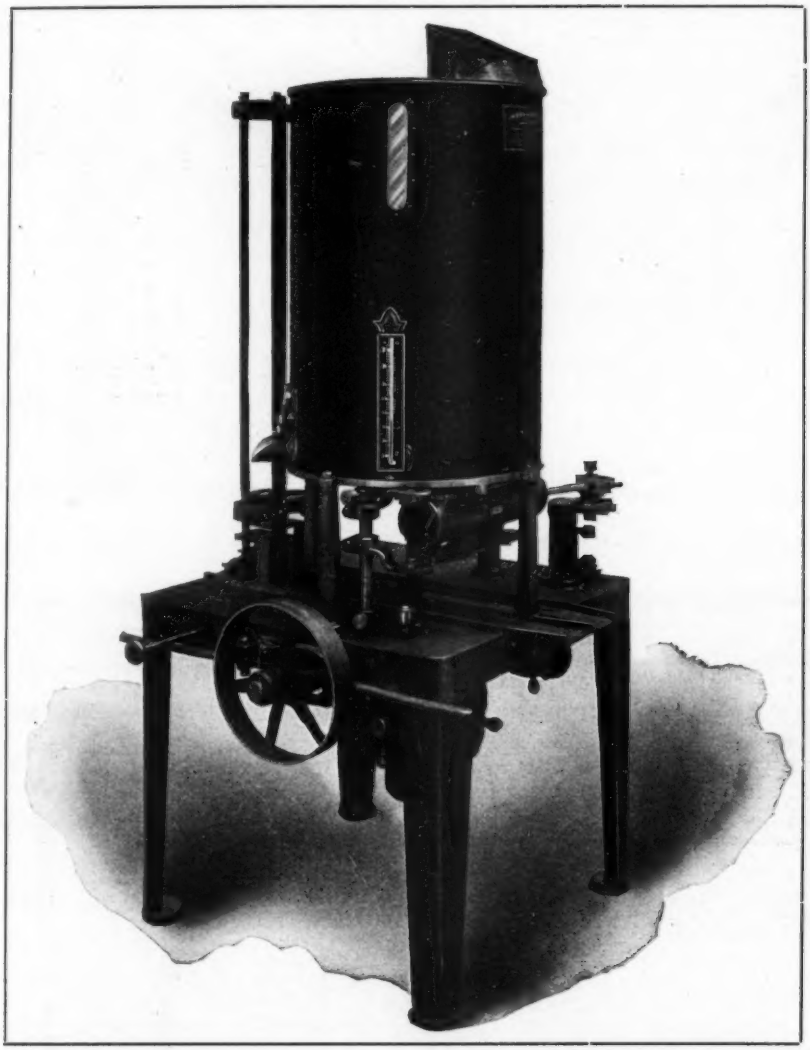
C. S. HARRIS COMPANY, Sole Owners and Manufacturers, ROME, N. Y.

The Queen Anne Corn Cooker



This machine is not an experiment, it has proven its claim not only to the front rank, but to leadership—and rightly, too. There is no Cooker on the market possessing so many good features; simplicity, capacity, easy to clean, lightest running, removable stirer, etc. Testimonials for the asking. Get your orders in early to insure prompt delivery; demands will be great for this machine. How about your other requirements for 1905?—none too early to take it up. Always something special in second hand machinery.

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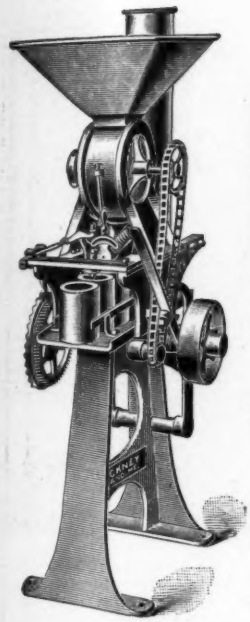
BALTIMORE, MD.



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Double or Single Line, Capacity 1000 to 1500 per hour to the Line, according to size of bean, can or stud hole.

TESTIMONIALS:

"We consider it one of the best pieces of machinery in our factory."
ELYRIA CAN'G CO.,
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"The machine is a very satisfactory one, clean, neat, and uniform in filling."
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Special filling machines for all purposes, handling **light and heavy Syrups, Condensed Milk, Baked Beans, Fats, Oils, Mustard, etc.** in round or square cans or glass jars.

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Improved Kraut Cutters

They make a long thin cut.

Patent Core Cutter

Saves 15% of Cabbage.

Patent Vegetable Cutters

Fastest cutters in the world.

John E. Smith's Sons Co.
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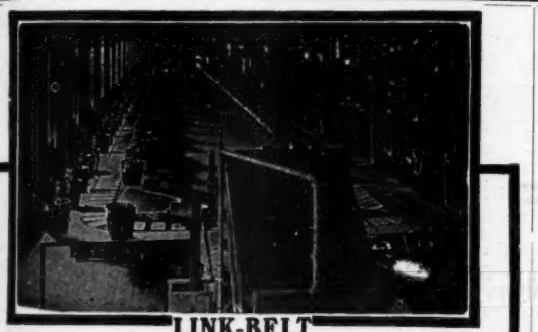

LINK-BELT PATENT PEELING and TRANSFER TABLE

built in any length for 75 to 200 peelers, also *Elevators* and *Conveyors* for handling green corn, husks, cobs, cans, crates, baskets, boxes, slops, etc.

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Opportunities

¶ There are some very excellent opportunities for canning factories, preserving plants, etc., along the many lines of the

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¶ Particularly good openings exist in the new sections of the Southwest where the canning industry is undeveloped as yet. Inducements are offered to secure canning factories.

¶ Send for a copy of our descriptive booklet entitled "Opportunities."

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Special Eastern Agent for

The "Sprague" Line of Canning Machinery

"Hawkins" Continuous Capper, "Jersey Queen" Filler, Model "M" Corn Cutter, Corn Cookers, Silkers and all Machines for Canning Purposes

608 Page Catalogue for the Asking

Don't Worry, ask me, I'll get it for you

If it is used in a Canning Factory, I sell it.

Cans, Shooks, Solder, Crates, Climax Flux, "Lockwood" Gas Machines, Tools, Etc., Etc.

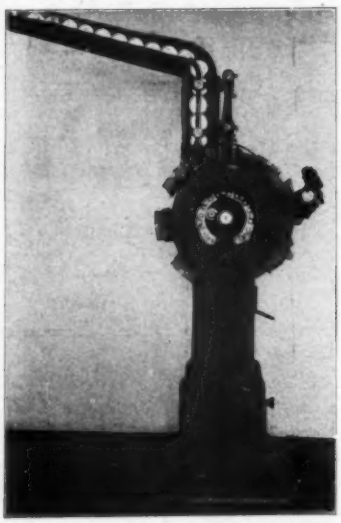
GEO. E. LOCKWOOD, 308 CHESTNUT ST., PHILADELPHIA, PA.

Correspondence Solicited

My Motto: The Buyer Must be Satisfied.

This Illustrates the Most Perfect Machine for

Heading Round Cans



It is continuous in operation and almost noiseless. These machines are heading 130 condensed milk cans per minute, which is much less than their capacity. The bottoms are Tagger's tin, very difficult material to handle in other heading machines. If bodies are of uniform size, no crimping is required.

This Crimper is of new and unequaled design. It is quickly adjustable to different diameters and lengths without change of parts. The crimping rings are only adjustable laterally and can not be put out of axial adjustment. Its capacity is without limit in speed.

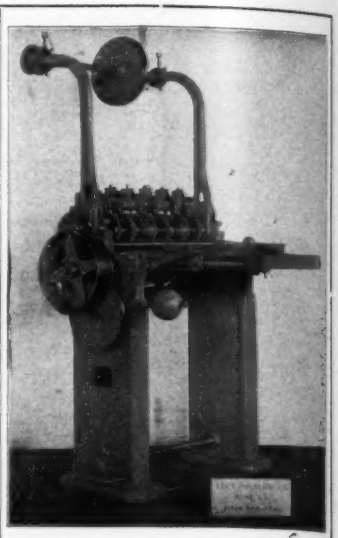
WE MANUFACTURE

Seamers, Floaters, Testers, making a complete line of High-speed Fruit Can machines of unequaled design and construction.

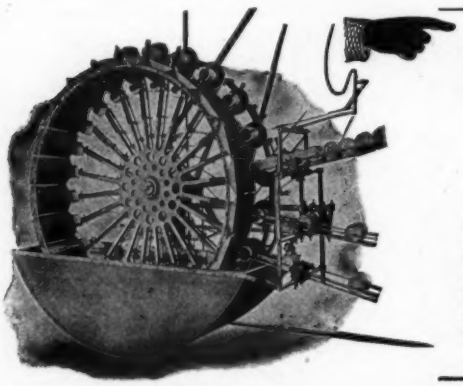
Catalog Mailed on Application

Utica Industrial Co.

UTICA, N. Y.



Diligent study of the Slitter problem has made it possible for the inventor of this machine to perfect it in every particular and it stands far in advance of all Slitters heretofore offered. It is operated by a single belt, the Automatic feed, receiving and discharge rolls and cutter shafts being perfectly timed by cut steel gears. No slitter operated by two belts can produce equal results.



The Leiger Automatic Tin Can Tester

MANUFACTURED BY

The L. BENEDICT CO., 128-130 S. Clinton St., CHICAGO

JAMES FRAKE, MANAGER

This Tester works automatically. It stops if cans cease to go into Tester and starts when they commence to come down the run. It separates the bad cans from the good, or in other words, it automatically throws out all bad cans, however small the leakage may be. It will test both round and square cans. The Tester requires no attendant and will run 30,000 a day, and it is impossible to get a bad can among the good ones. The machine weighs less than 2,000 pounds, occupies 4x8 feet of floor space, and requires about one-half horse power to drive it.

JAS. G. GRIEM, Pres. *JAC. C. SCHMIDT, Vice-Pres.* *ALFRED T. HIPKE, Sec. and Treas.*

NEW HOLSTEIN CANNING COMPANY

PACKERS OF THE

UNIFORM AND BUTTER LILY BRANDS

PEAS AND CORN

NEW HOLSTEIN -- WISCONSIN

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FOR THE

LARGEST CAPACITY
GREATEST ECONOMY
LEAST TROUBLE

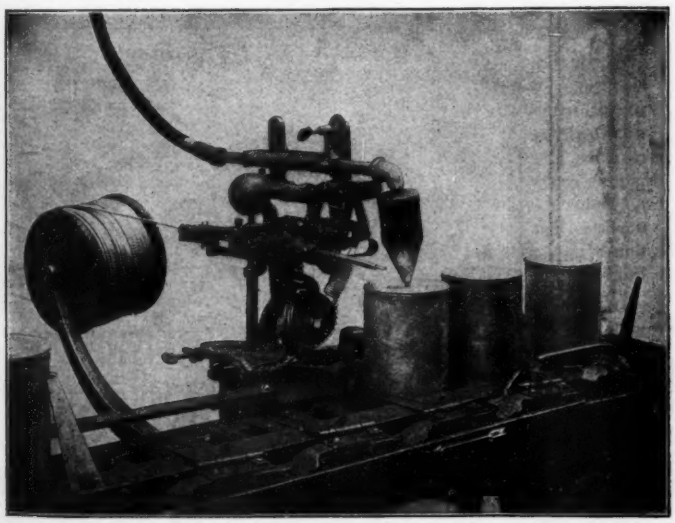
MOST PERFECT LABELING

If you saw the Hammond Labeler at the Convention we don't need to say anything to you.
If you did not see our Labeler let us send you some information concerning it.

The Atlantic Machine Works

WESTMINSTER, MARYLAND

The AUTO-TIPPER



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Get Your Orders in EARLY, as we have to refuse late orders every year

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CHICAGO SOLDER CO.

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Established 1875 ♣ M. G. Madson, Pres. ♣ Incorporated 1892
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THE M. G. MADSON SEED CO.

Seed Growers AND Merchants

Specialty of Growing PEAS for the Canning Trade

CORN

TOMATO PLANTS

Office and Warehouse: MANITOWOC, WIS.

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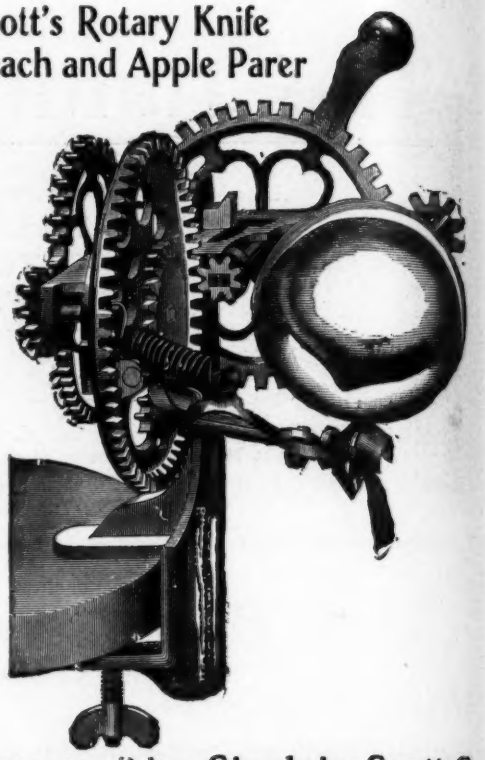
Scott's Rotary Knife Peach and Apple Parer



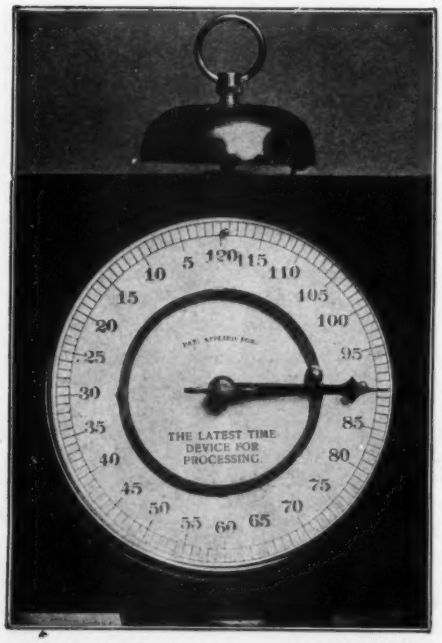
Manufactured by The Sinclair-Scott Co.
Manufacturers of Canning House Machinery, BALTIMORE, MD.

Newest Time Device for Processing

Made by JOHN T. STAFF, JR., Terre Haute, Ind.

No More Undercooking, No More Overcooking, No More Errors

The Clock Will Tell You, and Keep You Right



Simply turn the hand on the dial to the number of minutes the process calls for, and a minute before that time is up the bell rings.

Dials made with 120 minutes.

Have placed orders with several of the largest packers and would like to send them to every factory for trial, to be sent back if not entirely satisfactory.

Only a Limited Number will be put out this Season, so Order Early

THE CHISHOLM-SCOTT CO.

PEA HULLING MACHINERY

Works:
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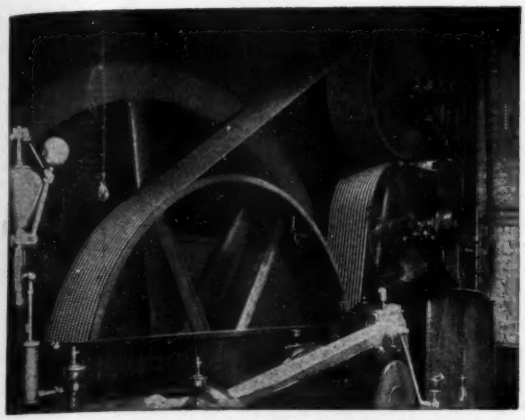
Power Transmitting, Elevating and Conveying Machinery



Rope Transmission Appliances,
Chain Belting,
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Friction Clutches,
Shafting, Pulleys, Gearing.

Belt Conveyors for all purposes,
Barrel Elevators,
Package Carriers,
Spiral Conveyors,
Elevator Buckets.

Webster Manufacturing Company

1075-1097 West 15th Street, CHICAGO

Condensed Paste Powder

CHEAPER than flour paste. Being dry it saves freight and can be shipped in mid-winter. One pound will make in one minute two gallons of snow-white paste, where boiling water or steam can be had. It makes three times more PASTE than cold water Paste Powders.

PRICES: In barrels of about 240 lbs. - - 6c per lb.
In 50 and 100 lb. packages - - 8c per lb.

Tinnol

For lacquered and plain white tin. Prevents rust spots and does not affect the most delicate colors. Keeps sweet in any weather and does not warp or wrinkle the paper. The BEST paste for tin in the market. Has to be reduced with 50 per cent. of water. PRICE, in casks, - - - 37c per gallon

THE ARABOL M'F'G CO.

100 WILLIAM STREET, NEW YORK

Books for Canners

Chemistry of the Farm—By R. Warrington, F. C. S. 120 pages, 5x7 in. Cloth. **$1.00.**

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Canning and Preserving

AS AN INDUSTRY
By Dr. Jean Pacrette of Paris

Formulas and Recipes Actually Used by the Author and Prominent Packers

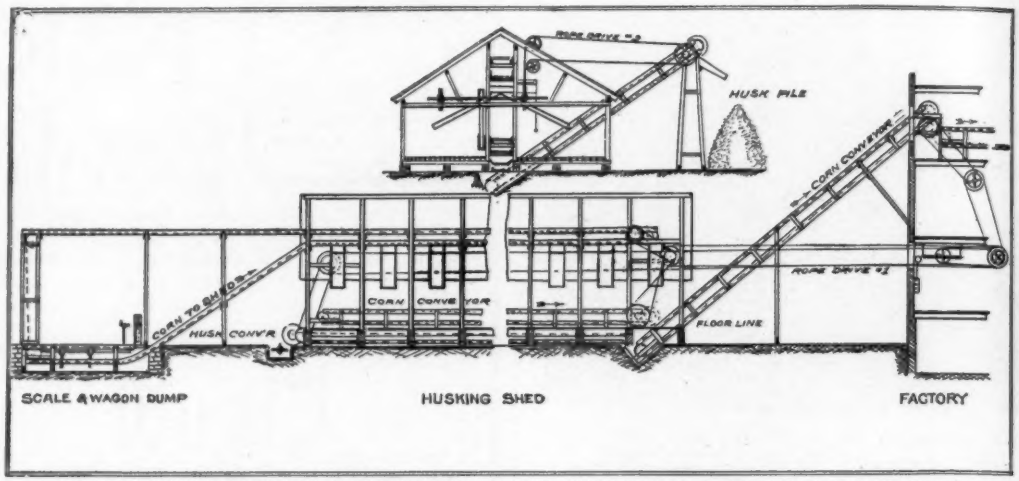
Price $5.00, Draft with Order

In offering the canning trade this work we do so in the belief that it is the most complete and comprehensive of all the text book on the art of canning. Send all orders to

The CANNER

22 Randolph Street, Chicago, Illinois

CONVEYOR APPARATUS



(THE ABOVE ILLUSTRATION SHOWS THE NEW SYSTEM FOR UNLOADING AND DISTRIBUTING CORN AT HUSKING SHEDS)

Submit all your conveyor problems to us. We make estimates to fit each particular case, sending expert to go over all details without charge. If you want the work done RIGHT, we are the people you are looking for. ¶ This department of our work is in charge of Mr. Otis B. Westcott, the well known Mechanical Engineer and Expert in Conveyor Apparatus.

Sprague Canning Machinery Company, Chicago, Illinois

To all Interested in Canned Goods

Gentlemen:—

At the recent Canners' Convention held at Columbus, Ohio, the undersigned were appointed a **"Committee on Purity and the Promotion of Consumption of Canned Goods."**

Our work is not supposed to end at recommending that extreme care be exercised in packing, and that the present high standard of purity be maintained; but we are supposed to investigate, devise, recommend and, if possible, put into action work along such definite lines as may appear advisable and feasible. To this end we solicit the co-operation of the entire Canning Trade and of the distributing agencies, jobbers, brokers, etc., interested in our commodity, also of those whose business can in any way be benefited through the advancement of the interests of the Canners of America.

Our suggestion is that all interested in this matter of the promotion of consumption of Canned Goods give serious thought to the subject, and submit their thoughts, schemes, suggestions, plans, experiences and recommendations to the undersigned, making this committee a sort of clearing house for the brain of the business, concentrated on this idea of expanding the consumption of Canned Goods. Every communication will receive our careful consideration and comment no matter how brief or how comprehensive it may be.

Respectfully Submitted,

DANIEL G. TRENCH, Chairman
42 River Street, Chicago.
W. R. ROACH,
CHAS. S. CRARY,
RALPH B. POLK,
Committee.

Just because you have had a certain amount of success with a particular brand of flux, is no reason why you should not take the trouble to post yourselves as to the comparison between that flux and

Standard Soldering flux

The old flux might not be so satisfactory then, and it is worth looking into. Do it now.
Next week I'll tell you another reason why you should use my fllux.

Manufactured by

Marlou Chemical Company, Jersey City, N. J.

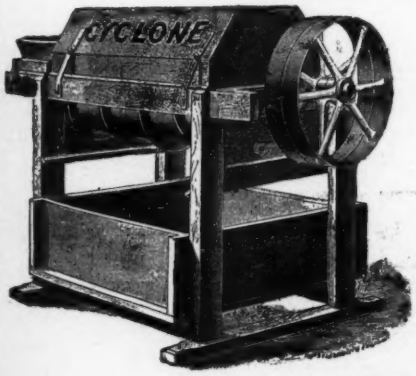
JAMES M. WAIT & COMPANY, General Western Agents, Ceylon Building, CHICAGO, ILLINOIS

Bucklin's CYCLONE Pulp Machine

MANUFACTURED BY

The Sinclair-Scott Company, Baltimore, Maryland

UNDER THE BUCKLIN PATENTS



This is the Best Machine in use for making Tomato Pulp for Ketchup and for Preparing Pumpkin for Canning.

It will reduce any fruit or vegetable to a fine pulp, and will extract the pulp from tomato skins, leaving the pulp entirely free from skins and seeds.

In preparing pumpkin, this machine does all the work of peeling and sifting, and without any waste.

It is rapid, continuous in action, and self-cleaning.

The machine is substantially built of hardwood and steel, and will last as good as new for many years.

Each machine is furnished with tight and loose pulleys, as shown in cut, and one extra inside sieve.

CAPACITY—75 tons Tomatoes per day; 50 to 60 tons Pumpkins per day.

FLOOR SPACE—4x6 feet. **WEIGHT—700 lbs.**

WESTERN AGENTS

Sprague Canning Machinery Company, Chicago

Extra Coated Cans

Lest there be some misunderstanding of the above matter, we desire to remind the trade that we have for several years furnished cans made from specially coated plates, carrying any weight of coating desired by our customers.

Our Standard Cans are invariably made from the best Standard Coke Plates that can be bought in the market, and we believe them to be proper and satisfactory packages for most varieties of fruits and vegetables.

Whenever the peculiar properties of the goods to be packed, or the preferences of our customers require a specially coated plate, we are always ready to supply it at the actual additional cost to us of the material.

We shall be pleased to quote special prices on any specifications that may be submitted to us.

American Can Co.

Merchants' Loan and Trust Bldg., Clark and Adams Sts.,

Chicago

THE CANNER

AND DRIED FRUIT PACKER

VOL. XXI. No. 8 CHICAGO, THURSDAY, SEPTEMBER 7, 1905 WHOLE No. 554

THE CANNER

AND DRIED FRUIT PACKER

with which is incorporated TRENCH'S CANNERS' INDEX

PUBLISHED EVERY THURSDAY BY

THE CANNER PUBLISHING COMPANY,

22 East Randolph Street, CHICAGO

JAMES J. MULLIGAN, EDITOR

SUBSCRIPTION RATES

United States and Canada, one year..... $3.00
All Foreign, one year..... 5.00

Remittances may be made by Post Office Order, Registered Letter Check, Draft, Express Money Order, or Order on the House in Chicago with which the subscriber is doing business.

ADVERTISING

Advertising rates made known on application. Copy for and changes in advertisements must be in this office on Monday preceding the date of issue.

CORRESPONDENCE

Correspondence upon all subjects of interest to the trade is solicited Items of news, both personal and general, are always interesting, and we wish each subscriber to assist in making *The Canner and Dried Fruit Packer* the newsiest journal in the trade.

In correspondence, writers will observe the following regulations: communications must always be accompanied with the writer's name, as no attention is paid to anonymous letters. A designating mark will be used where publicity is not desirable. We do not hold ourselves responsible for views of correspondents, but all interested are cordially invited to use our columns freely.

Literary contributions are invited from all interested in the advancement of the canning industry. Payments will be made for all special papers on practical, mechanical or scientific subjects of value to the industry which are accepted and published.

ENTERED AT THE CHICAGO POST-OFFICE AS SECOND-CLASS MATTER

We've been having of late a sort of "frenzied" salmon market.

* * *

And through all of it neither the sockeye nor the Alaska red has uttered a single protest.

* * *

Smiles wreathe the faces of speculators who bought tomatoes at 70c, factory, but the expression on the faces of those who waited till the market reached 85c before getting in on the gamble is not quite so joyous.

* * *

CANNER Want Ads are famous for finding buyers for surplus seed, second-hand machinery, etc., or for seeking out good positions for competent processors, superintendents and salesmen. Why don't *you* try one *now?*

* * *

It is insisted that all estimates of the 1905 tomato pack are simply guesses, and it must be acknowledged that, regardless of the extent and reliability of one's information, nobody knows for certain when the wheel will turn or where it will stop.

* * *

Lea & Perrins' Worcestershire sauce, which has been a standard condiment for many decades, has been found illegal in Minnesota by the food commissioner of that state, who announces that it contains salicylic acid. What may we not look for next?

* * *

The Minnesota Dairy and Food Commission will hold at the state fair this year an "educational exhibit," consisting of a display of both pure and adulterated food. This unique exhibit will be called "educational" because, as an official of the dairy and food department says, "The object is to educate the people to buy only pure food, to educate the dealers to handle only pure food, and to encourage the manufacturers to manufacture only pure food," all of which are very worthy objects.

* * *

All reports on general commercial conditions and prospects are encouraging. Reviewing the trade situation, Dun's weekly report states that "Peace and prosperity succinctly express the results of an eventful week. International mercantile markets responded to the cessation of hostilities. Domestic reports were scarcely less encouraging. Leading branches of manufacture are increasing in productive activity." Bradstreet's trade review notes: "September opens with fall buying apparently at a maximum. Liberal buying by railroads of rails and supplies, currency shipments to the country to move crops increasing, and with confidence as to the outlook for trade previously noted strengthened. Something like a transferrence of fall trade activity from west to east is indicated. Western houses are, however, pushed to fill orders previously received, and business west and northwest is still heavily in excess of a year ago." Concerning the business situation in the Chicago district, Dun's review of the week states that "The Commercial Association registration of visiting buyers exceeds 1,200 names. This enormous influx includes merchants from no less than twenty of the states and territories, and it is notable that a number are from Ohio, New York, and Canada. It is not surprising that the wholesale district now exhibits unparalleled activity. Interior advices as to harvested crops and condition of corn have a beneficial influence upon industrial operations for the immediate future."

CONTINENTAL CAN COMPANY

DIRECTORS:
T. G. CRANWELL, Pres't.
A. W. NORTON, Vice-Pres't.
F. P. ASSMANN, Sec'y & Treas.
J. C. TALIAFERRO.
B. H. LARKIN.

C. A. SUYDAM, Sales Agent

FACTORIES:
CHICAGO
SYRACUSE

To the Canning Trade

* * *

We beg to advise you that we will carry a comfortable stock of corn and tomato cans during the present packing season, which, added to our large manufacturing capacity, will enable us to respond to all "hurry up" orders in a manner entirely satisfactory to you.

We can furnish solder hemmed caps or plain caps as you prefer.

We want to tell you that we are making what is unquestionably the cleanest and best can in the country. Try them and we will not have to tell you this again. You Will Know.

Awaiting your commands, we are,

Very truly yours,

CONTINENTAL CAN CO.,

Thomas G. Cranwell, President.

National Food Legislation.

FOR many well-known reasons it is desirable to have a national food law in this country, where the state laws governing the sale and distribution of manufactured food products are at variance on such important points as defining adulteration, fixing standards, and regulating labeling. Compliance with the food laws is at present a serious problem to hundreds of food manufacturers doing an interstate business, hence any movement for the enactment of a national law just and equitable to all interests and serving as a basis for revision of the state laws, to secure uniformity, should be welcomed by all branches of the food industry.

Such a movement has been inaugurated by the newly formed National Food Manufacturers' association. This organization proposes, we believe, to draft or have drafted a new measure in which all the defects of earlier bills shall be eliminated, and to vigorously urge Congress at its next session to give it the prompt and careful consideration which its great importance entitles it to. We believe the plan is to call a convention of representatives of the more important branches of the food manufacturing industry and to thoroughly consider all questions involved in national legislation of this character. A bill, as we understand it, is then to be framed, based upon the sense of this convention, though incorporating no provisions incompatible with the fair and honest treatment of the consumer; and this bill is to be laid before Congress, with the request that it give it favorable consideration. Such a bill would represent the ideas of the manufacturing interests. It would not give the members of Congress opportunity to say again that food manufacturers "do not know what they want."

So far as the new association has made known its purposes, it appears to be moving in a direction which should merit for it general and cordial support. The objects of the National Food Manufacturers' association are identical, so far as above outlined, with those of the National Association of Packers of Pure Canned Foods. There is not likely, however, to be rivalry between the two organizations. For one thing, the membership in the National Food Manufacturers' association consists in large part of interests not identified with the canning industry. For another, the canners' association places more importance on the end than the means. The law itself is what it cares most about.

Food Inspection in Chicago.

FOOD inspection in Chicago is taking on a "frenzied" phase. The strenuous inspectors are making wholesale condemnation of meats, fish and fruit (in the fresh, or green, state). They have taken no action on preserved food products, and not being, as we believe, inspectors tainted with fads, in all probability will not do so.

A local health bulletin, issued Aug. 28, reported that food inspectors, acting for the city health department, destroyed 88,677 pounds of meat at the Union stock yards in a single week, which doubtless was a blow from which the packing magnates have not yet recovered, their temper, at least. Included in the condemnation were three hogs which bore the government inspection tag. Other goods destroyed were quantities of immature veal, tainted poultry and spoiled berries and fish in the loop district. One hundred and twenty-one barrels of fish, three barrels of which were about to be delivered to a smoking and curing plant, were destroyed.

There surely can be no good reason to doubt that the officials of the Chicago health department were justified in condemning this immense quantity of food. They would not have dared destroy over a hundred thousand pounds of salable products unless good reason for such action existed.

Production of Tin in 1904.

MR. JOSEPH HYDE PRATT, United States geological survey, who has written a brief report on the production of tin in 1904 for the survey's annual volume, "Mineral Resources of the United States," states that the total production of tin in the world in 1904, exclusive of the production in China, was 92,243 long tons. The product comes mainly from the Malay states, Banka and Billiton, Bolivia, England and Australia. A very small quantity is also produced in Austria, Germany, Japan, Mexico and America. There was a slight decrease, amounting to 1,650 long tons, in the estimated production of tin in 1904 as compared with 1903. The consumption of tin in 1904 is estimated at approximately 94,755 tons, which is 2,512 tons more than the actual production.

During the last few years the production of tin in the world has not been equal to the demand, and the accumulated stocks of tin have become very much diminished since 1896. One of the chief reasons for this increasing demand for tin is the large growth of the canning industry and also the use of tin boxes and cases in shipping sundry articles.

On account of the demand for tin and the high price it brings, a new industry was started a few years ago which is known as "detinning" tin scrap, and this has now become of considerable importance in the United States. Many hundred tons of metallic tin and chemical salts of tin, chiefly chlorides, are procured each year from the chemical or electrolytic treatment of new tin scrap, which is obtained from tin can and fruit can factories.

"Canner" Want Ads.==Try One

Columbia River Packers to Pro Rate Deliveries.

The Columbia River Packers' association has notified its agents that the pack of spring chinooks is short and that deliveries on contracts will be made pro rata.

Advices state that the later run on the river, upon which so much depended to make up the earlier shortage, was a failure the last ten days, it was stated, giving hardly enough fish to warrant the keeping open of the factories. The advices yesterday were incomplete as to details of the pack. Unofficial estimates on the total for the season reach 325,000 cases. Estimates on the total sales range from 400,000 to 450,000 cases. It is stated also that a market shortage in the pack of halves and flats has been a feature.

The effect of the shortage in the Columbia river is expected to act favorably in influencing a strong movement in sockeye salmon.

The California Prune Crop Shortage.

In connection with the prune crop situation on the Pacific coast, one of the best posted authorities in California says:

"We have been gathering accurate statistics of the total output of prunes last year in the various European countries where production is largest, together with the best possible estimates of the coming crop, and have compiled the same. The results show up rather startling, and we believe the trade will appreciate, as we do, that the quantity of prunes available to supply requirements this year is exceedingly small.

"Our figures on the European crop of last year, as well as estimates on the coming crop, were furnished by our own brokers abroad, and can be relied upon:

	World's Supply. 1904. Pounds.	1905 Crop. (Estim'd.) Pounds.
France	72,000,000	66,000,000
Bosnia and Servia	185,000,000	75,000,000
California	165,000,000	60,000,000
Oregon	15,000,000	15,000,000
U. S. carry-over	40,000,000	10,000,000
	477,000,000	226,000,000

"We feel sure our estimate of last year's crop in California, as well as the carry-over, is approximately correct, and that our figures for 1905 are conservative."

Regarding market conditions, one of the best posted brokers said yesterday: "Three weeks ago I predicted a 4c basis on Santa Clara prunes, f. o. b. coast, before Oct. 15. I look now for a 4c basis by Oct. 1, as the market on the coast has got beyond control of the packers. There has been considerable short selling by packers, and many of them will lose considerable money this season. Local jobbers have anticipated a considerable portion of their early requirements for the fall trade, but I look for a market advance in the October market because of the unusual conditions of supply existing on the coast."

Big British Columbia Salmon Pack.

According to a Vancouver report, the salmon pack in British Columbia this season amounts to 1,000,000 cases. The report quoted says: "The Fraser river is responsible for 800,000 cases, and the rest comes from the Naas and Skeena rivers in the north. Puget Sound has put up between 600,000 and 700,000, so for the first time since traps were placed in United States waters this province has beaten the Sound canners. Commissioner J. P. Babcock, the piscatorial expert whom the government brought from California, thinks that the low water in the Fraser had much to do with the fish keeping shy of the region where the American traps are situated."

World's Production of Tin.

Consul Williams of Cardiff, Wales, furnishes the following statistics relating to the production and consumption of tin:

It is difficult to secure accurate statistics relating to the production of tin, but the following table, showing the output by countries for the last three years, is approximately correct:

Country—	1902. Tons.	1903. Tons.	1904. Tons.
Malay States	53,756	54,797	58,657
Banca and Billiton	18,765	20,000	14,638
Bolivia	10,150	9,500	9,200
England	3,950	4,150	4,282
Australia	3,206	4,991	5,082
Miscellaneous	350	395	384
Total	90,177	93,893	92,243

According to these figures, the production of tin is almost at a standstill, and there was an actual falling off in the output during 1904. On the other hand, the consumption is on the increase, and the accepted estimate for 1904 is as follows:

Country—	Tons.
United States	38,000
Great Britain	15,898
Germany	14,832
All other countries	25,525
Total	94,755

Thus the consumption for the year was 2,512 tons in excess of the output. Ordinarily, the tin consumed is lost forever, but the increasing demand and the threatened diminution of the available stock has given rise to a new industry—the detinning of tin scrap. The statistics show that the United States consumes over 40 per cent of all the tin produced, and it should lead in this recovery of tin from scrap.

Oregon Prune Prospects Improve.

Advices from Salem, Ore., state that while prunes have been dropping from the trees in large quantities in some orchards, in others the yield is coming out much better than was expected, and the general result is likely to be not far from the early estimates. One-third of a normal crop, or perhaps 4,500,000 pounds, is the estimate which H. S. Gile, of Williamette Valley Prune association, makes of the 1905 prune crop.

Canning Factories in Washington.

The present year has witnessed marked progress toward the permanent establishment, says the Bellingham (Wash.) Reveille, of the fruit and vegetable canning industry in northwestern Washington. "In this city, as well as in Anacortes, plants have been operated during the present season with an encouraging degree of success and a similar establishment is now talked of in Blaine, to be operated on the co-operative plan, we believe."

Dedicated to the Tomato Prophet.

BY INDEX.

Wind it is, not wisdom,
That fills the prophet's hat;
When he gets through his talking,
We don't know "where he's at."

CANNED GOODS MARKET

The reselling of tomatoes by jobbers who desired to take profits on futures bought on a much lower than the prevailing basis under ordinary circumstances would have exerted a depressing influence on the market. This class of selling has been distinctly noticeable for ten days or so. It has had effect here, but apparently has had none in the east, where packers seem entirely unmindful of it, as advices indicate that in more or less numerous instances they are even firmer in their views than at this time last week. The character of crop advices is the influence which stiffens the backbone of the eastern packers.

The crop situation as a whole continues discouraging, and the packers know it. The crop, in fact, appears from advices to be such that, so far as the yield of fruit and production of the canned article are concerned, there is the possibility of an unparalleled situation this fall. Reports coming in from the packing centers are indicative of an early ending of the season. In some of the most important tomato-canning localities the prospect is for an early wind-up of canning, which, of course, means a heavily reduced production; possibly a supply of canned tomatoes, including the carry-over from the 1904 pack, insufficient to meet normal consumptive requirements.

This so far has been a remarkable season. The shrinkage in acreage was unprecedented, and from various causes the crop generally has hardly, if ever, had more to contend with than this year. In every tomato state the yield has been affected by unfavorable development of some sort, and, as conditions affecting the progress of the crop have not, we believe, since become entirely favorable anywhere, packing has proceeded slowly in practically all localities. A possible exception is Baltimore. That canning center may have packed as many, or more, tomatoes as to the same date in 1904, but reports received by THE CANNER from practically every other important tomato section of the country are all of a kind indicating shortage for the country in general and that the production is behind what it was at the end of the first week in September last year.

Only a short time since it was conceded by everybody conversant with the situation that the only chance the country had of making a good-sized pack from the smaller acreage planted lay in the possibility that the canning season would continue beyond the average length; but the prospects at present is that the season will end early, instead of late. In some localities the end is reported to be already in sight.

A Baltimore report received Monday stated that "Firmness characterized the tomato market the past week, and a still higher level of prices was reached because of the light receipts and high cost of the raw material for canning purposes. . . . The weather during the week was considered good for the growing of tomatoes, but the growers claim that it comes too late to be of material benefit, and that a few days or weeks of it cannot overcome the shortage to any appreciable extent. Some of the country canners have voluntarily agreed to pay the growers an advance over their contract price, to induce them to deliver all of their tomatoes to them rather than yield to the temptation to ship them to Baltimore and elsewhere, to obtain the high prices prevailing here, the difference being between, say, $7.00 to $8.00 per ton under contracts to country canners and $25.00 per ton in the open market."

A report issued by a well-known Baltimore house, received the first of the week, said: "Arrivals are possibly somewhat larger, but they have not resulted in any materially lower prices per bushel. The only way packers seem to be able to bring tomatoes to Baltimore is to scour the country districts and offer exorbitant prices to growers. The conditions in the country are still bad. Most of the country packers are behind on their orders and will probably not be out of the woods for several weeks to come. Some of them report that they will be through packing in the very near future. There is no question about the market being in very strong shape independent of any syndicate which might be interested in holding up the price of tomatoes."

Conditions in Canada are satisfactory so far. Reports from all the leading tomato-growing sections of that country indicate that prospects are for a good, average crop, unless, of course, early frosts should cut the pack short.

Beans—

Buyers continue to show fairly good interest in new string and lima beans, on which packers maintain firm views. Prices vary so, according to packers and brands, that it is hardly practicable to quote local values. Rust greatly reduced the yield of beans in New York state and packers in that section are looked for to make short deliveries. Reports note that packers in some instances have been compelled to make large purchases, supposedly to cover contracts. Baltimore packers are not naming prices. The market there ranges from 90c to $1.00 on No. 2 standard green limas. Gallon green limas are offered there at $4.00 per dozen. The general quotation in Baltimore on No. 2 standard green strings is 45c; gallon strings, $1.75.

Apples—

Gallon apples hold very firm. Views of packers are strong, but offers either to buy or sell are limited, hence there has not been much actual business in Chicago during the week reviewed. New York gallons were sold locally during the week at equal to $2.50, Chicago. Michigan gallons are not being offered. Baltimore quotes gallon apples at $1.95 and 65c for No. 3s, full standards. Goods of a slightly inferior quality were offered there the other day at 5c per dozen less than these prices.

Fruits—

The market on all descriptions of canned fruits continues firm, and a fair amount of interest is shown in peaches, especially pies. The feeling on California lemon cling peaches is exceptionally firm. The Central California canneries has issued a revised price sheet, in which some advances in peaches are noted over that company's opening quotations. There is an advance of 10c on 2½-lb. extras and extra standards in cling peaches, and 5c in 2½-lb. standards, with a very general advance of 25c on gallon clings. Free peaches and raspberries show advances in practically all grades over opening figures. Peach-packing is in progress in Michigan. The eastern pack will be light.

Baltimore quotes gallon pies at $2.85, No. 3 standard yellows at $1.50, No. 3 extra standard yellows at $1.65, all f. o. b. A report from a Baltimore brokerage firm notes that they have been selling Michigan unpeeled pie peaches at $2.35, f. o. b. Michigan factory. Michigan peach growers, so far as we hear, will not accept any more orders at present. Gallon blackberries are reported practically out of the market. Gallon raspberries are held now at $4.00 per dozen, delivered here. Few are to be had.

	Extras 2 lb.	Extras 2½ lb.	Ex.St'n'd 2½ lb.
Apricots	$2.15	$1.40	$1.10
Apricots, peeled	2.55	1.80	1.50
Apricots, sliced	2.55	1.80	1.50
Cherries (R. Ann)	4.00	3.00	2.50
Cherries, white	4.00	3.00	2.50
Cherries, black	3.00	2.40	2.00
Grapes (white Muscat)	2.00	1.30	1.05
Nectarines	....	....	1.25
Peaches, yellow	2.40	1.70	1.40
Peaches, L. C.	2.50	1.85	1.60
Peaches, L. C., sliced	2.50	1.85	1.60
Peaches, W. H.	2.50	1.85	1.60
Peaches, W. H., sliced	2.50	1.85	1.60
Pears, Bartlett	3.00	2.25	2.00
Plums	1.75	1.25	1.00

	2½ lb. St'n'ds.	2½ lb Secs.	2½ lb. Water.	2½ lb. Pie.
Apricots	$1.00	$0.85	$0.80	$0.75
Blackberries	1.15	1.05	.95	.95
Cherries, R. Ann	2.25	....	....	....
Cherries, white	2.25	2.00	1.90	1.90
Cherries, black	1.75	1.60	1.50	1.50
Grapes, W. Muscat	.95	.85	.80	.80
Nectarines	1.15	1.05	....	....
Peaches, yellow	1.25	1.15	1.05	.85@95
Peaches, L. C.	1.35	1.20	1.10	1.00
Peaches, L. C., sliced	1.35	....	....	....
Peaches, W. H.	1.35	1.20	1.10	1.00
Peaches, W. H., sliced	1.35	....	....	....
Pears, Bartlett	1.65	1.20	1.20	.90@95
Plums	.90	.80	.70	.70

	Gal. Ex. Std.	Gal. Std.	Gal. Water.	Gal. Pie.
Apricots	$3.25	$3.00	$2.15	$2.00
Blackberries	3.50	3.25	3.00	2.75
Cherries, R. Ann	....	....	....	....
Cherries, white	....	....	....	4.00
Cherries, black	....	....	....	4.00
Grapes, W. Muscat	3.25	3.00	2.15	2.00
Peaches, yellow	4.35	4.00	3.00	2.60@2.25
Peaches, L. C.	5.00	4.25	3.25	2.75
Peaches, L. C., sliced	5.00	4.25	....	....
Peaches, W. H.	5.00	4.25	....	2.60@2.25
Pears, Bartlett	6.00	5.25	4.00	2.60@2.25

Tomatoes—

Western canners' veiews on the tomato situation and the market value of this article hold very firm. We heard of a sale, goods on the spot, made during the week reviewed at 82½c per doz., f. o. b. factory, but the bottom price of standard No. 3 tomatoes for shipment from factory is 85c per doz., f. o. b., though western canners are offering almost nothing now at any figure, for the condition of the crop is not such as to warrant packers who have sold any considerable quantity of futures in increasing their obligations to the jobbing trade. According to reports, the New York market continues firm, with southern packed goods quoted at a range of 82½@87½c per doz., f. o. b. factory, full standard 3s, prompt shipment. The jobbers were not interested to the extent of making any actual purchases, and, as in the Chicago market, profit-taking by wholesalers was noticeable. Future No. 3 standards are held generally at 85c, f. o. b. Baltimore and county factories; gallon standards, $2.35@2.40, regular terms, f. o. b. Baltimore, prompt shipment. This is an advance on gallons over last week's price. It is understood that few gallons are being packed in Baltimore, and as the quantity carried over from last year was light, this particular package is in strong shape.

Corn—

Corn is weak; it is useless to deny or attempt to conceal the fact. Western packed, new, standard corn has sold in Chicago this week at 50c per doz., delivered. There is no scarcity of offerings at this quotation, at which quite a good amount of business has been done, the goods for the most part coming from packers in Ohio and Indiana. Packers in other states of the west as a rule make offerings on last week's basis. Corn continues dull in New York, where the market is featureless. Prices ruling show no change since a week ago. Reports from Maryland indicate a pretty good sized pack. No. 2 standard Harford county style is quoted in Baltimore at 50c per dozen, Maine style at 65@70c, f. o. b.

Peas—

Peas are resting. There is at present but little business in the Chicago market, which presents precisely the same features as for several weeks past. Values are unchanged. But peas are good property, and the general belief is that later on, when buying

is revived, they will go to better figures than those prevailing. Peas in the New York market hold at steady prices, but buying there is light. Most of the demand in Baltimore is for seconds and standards. Values there are steady at no change.

Miscellaneous—

Fall packed spinach, which will be ready for shipment in October or November, is selling in Baltimore at 90c per dozen for No. 3s and $3.00 for gallons. No. 3 spot spinach is quoted there at 80c to 90c per dozen, according to quality. Baltimore quotes new beets at 85c per dozen for No. 2s, $1.10 for No. 3s. They are whole beets. Baltimore is quoting new packed pumpkin, which will soon be ready for delivery, at 60c per dozen. Old goods are reported practically cleaned up.

Oysters—

Cove oysters are steady at unchanged quotations. The demand continues fairly good. Chesapeake Bay stock is quoted, f. o. b. Baltimore, as follows: No. 1 extra lunch, 97½c; No. 2 extra lunch, $1.75; No. 1 6-oz. selects, $1.25; No. 2 12-oz. selects, $2.35; No. 1 6-oz. extra selects, $1.50; No. 2 12-oz. extra selects, $2.90; No. 1 5-oz. standards, 75c; No. 2 10-oz. standards, $1.50; No. 1 5-oz. standards, tall cans, 77½c; No. 2 10-oz. standards, tall cans, $1.50; No. 1 4-oz. cove, 70c; No. 2 8-oz. cove, $1.35; No. 1 light-weights, 45c; No. 2 light-weights, 85c.

Salmon—

Prices on red Alaska salmon have been put back on the $1.00 coast basis, which ruled previous to the recent cut started by the Alaska Packers' association. Aside from this, nothing of consequence has occurred during the week reviewed. This restoration of the former figure is understood as signifying that the association has disposed of its holdings of old red Alaska, as well as that the wholesalers, for the present at least, are filled up to their capacity. Sockeye salmon is steady. The situation on the Pacific coast is discussed in detail by our Seattle correspondent in his letter published elsewhere in this issue. The local salmon market is in strong shape.

IF YOU WANT TO BUY OR SELL NEW OR SECOND-HAND CANNING MACHINERY; SELL OR BUY A CANNING FACTORY; SELL OR BUY SEED CORN, SEED PEAS, ETC. TRY A WANT AD. IN THE CANNER

DRIED FRUIT MARKET

The firmness of prunes is the feature of the dried fruit market in this and eastern jobbing centers. Markets everywhere show strength. Reports from the Pacific coast note that the market is anywhere from 3⅜c to 3⅞c per lb., 4-size, bag basis, f. o. b., on sizes 40s to 80s inclusive. Few lots were reported obtainable at the inside figure. In straight lots, 40s are held on a 3⅝c, 4-size, bag basis. The market on outside prunes is also very firm, with Oregons reported practically sold up. Local jobbers are holding off, except for immediate wants. Some estimates place the total available supply of California prunes this year, inclusive of the balance carried over from last season, at not to exceed 65,000,000 lbs.

Peaches—

The market on peaches is steady locally and on the Pacific coast. The actual market is difficult to quote, owing to the extent to which the quotations vary.

Raisins—

A report from San Francisco says that spot raisins are becoming scarce, though it is said there is little new of interest. There were reported a day or two since speculative offerings of new crop seeded at 7½c, f. o. b. coast, for 1-lb. cartons. Buyers, however, show no great amount of interest.

Apricots—

Apricots are the only item in the entire list of domestic dried fruits which show any indication of weakening. So far as we know, though, there have been no offerings at concessions from quoted prices, which are the same as ruled last week.

Apples—

The feeling on evaporated apples continues firm. No great amount of business, however, either on spot or future prime, is reported. Recent advices on the New York market quoted future prime evaporated at 7¼c per lb., for October delivery, with bids at 7⅛c refused.

CANNERS' SUPPLIES

Cans—

Aside from shipments of No. 2 cans to corn packers, there is no movement now in packers' cans, nor

REYNOLDS'
PATHFINDER
FANCY SIFTED PEAS
DIRECTIONS
THOROUGHLY HEAT THE PEAS IN THEIR OWN LIQUOR. DO NOT BOIL. SEASON TO TASTE AND SERVE HOT.
CHOICEST QUALITY
GROWN & PACKED BY
THE REYNOLDS PRESERVING CO.
STURGEON BAY, WISCONSIN.

is there anything new to be said regarding prices. The manufacturers' selling prices are without change, the American Can Co.'s quotations remaining as follows: $10.00 for No. 1s, $13.50 for No. 2s, $16.50 for 2½s, $17.00 for No. 3s, $42.50 for gallons, f. o. b. maker's factory.

Pig Tin—

Indications seem to be that the foreign bull movement is dangerously near collapse, as prices have steadily declined during the week. Demand is extremely light, which intensifies the situation. It is rumored that the decline has been stopped, but the figures do not bear out such reports, there being a drop of 80 to 85 points since our last report. We quote as follows for delivery f. o. b. New York:

	Spot.	Sept.	Oct.
5-ton lots	$32.50	$32.37½	$32.25
1-ton lots	32.62½	32.50	32.40

Tinplate—

So far as new business is concerned, complete stagnation exists in this commodity. Concessions in price are said to have been offered in some cases, but have been of no avail. Meantime, market remains nominally unchanged, being as follows, f. o. b. mill:

BESSEMER STEEL COKES.

14x20 (100 lbs.)	3.55
14x20 (95 lbs.)	3.50
14x20 (90 lbs.)	3.45

Usual differentials for odd sizes, etc.

Tomatoes the Year Round.

The demand for fresh tomatoes the year round has induced growers to increase very greatly the production of this vegetable—which, by the way, is more properly regarded as a fruit—under glass. Usually the plants are trained up tall wooden stakes, being thus persuaded to adopt a vertical method of growth, simply for the reason that when managed in this way they take up much less room. Wires used to be employed, but the sticks have the advantage of being more rigid. It is customary to restrict each tomato vine to a single stem, which, reaching to the roof of the forcing house, attains a height of seven or eight feet. A good deal of the foliage is pruned away in order to admit sufficient light.

Tomato plants grown under glass are of dwarf varieties, which, having shorter joints, produce fruit in clusters much closer together on the stem. Another advantage possessed by these varieties is that they ripen earlier, beginning to yield marketable fruit by March 23 and continuing to bear until July 15. From each plant should be obtained during this period an average of twenty-five tomatoes, weighing about five pounds.

Inasmuch as the tomatoes yielded by each plant may be expected to sell for from $2.06 to $2.53, it would seem that there is money in the business. Much care and skill are required, however, the glass gardener being obliged to fertilize the blossoms artificially between December 1 and March 1 in order to insure a satisfactory crop.

Naturally, the great demand for forced tomatoes comes after the frost has destroyed the outdoor crop, and it lasts until the Florida crop comes to market. If it be desired to get ripe fruit by Thanksgiving day, the seed must be sown by July 20. In the neighborhood of our great cities, especially New York and Boston, the area devoted to truck gardening under glass is becoming greater every year, and increasing attention is given to tomatoes, the demand for them being so large and unfailing.

Plum Propagation.

The usual method employed in this section, writes Prof. H. N. Starnes of the Georgia Experiment Station, for commercial propagation of the plum is budding, exactly as with the peach. This is generally performed in August. Either Marianna or peach stock is used, generally the former, since it is cheaper. Marianna rooting readily from cuttings. No difference has been found at the station in the aftergrowth of plums worked on either stock, though we are inclined to recommend Marianna for native varieties and peach stock for Japan plums. Grafting as a means of propagation may be utilized, if desired. It is sometimes convenient when an old orchard, from which the scions are to be taken, is to be destroyed before budding time. Grafting is, of course, performed in late winter or early spring, and any of the usual processes may be employed, including root grafting.

CANNER WANT-ADS
FOR
All wants of Packers and Processors

CORRESPONDENCE

PROGRESS OF THE TOMATO PACK.

NEBRASKA.

Beatrice, Neb., Aug. 30, 1905.

EDITOR CANNER:—Contract corn will give us about the same sized pack as last season; small increase and some corn coming in uncontracted will possibly increase our pack 10,000 cases.

LANG CANNING & PRESERVING CO.

IOWA.

Atlantic, Iowa, Aug. 30, 1905.

EDITOR CANNER:—We are very busy at present packing corn. We will have a larger pack than usual, unless the hot, dry weather continues, which will ripen it so fast that we will be unable to take care of it. It is hard for us to estimate, at the present time, what our pack will be, but will be in a position to do so in about two weeks.

ATLANTIC CANNING CO.

MAINE.

Portland, Me., Sept. 4, 1905.

EDITOR CANNER:—We have been having a heavy rain and gale since Sunday. Expect corn is injured by being blown down.

DELAWARE.

Seaford, Del., Sept. 2, 1905.

EDITOR CANNER:—Tomato crop is about 50 per cent short of 1904, and will be about over in two weeks.

GREENABAUM BROS.

—

Seaford, Del., Sept. 4, 1905.

EDITOR CANNER:—This time last year we were running on tomatoes full time; this year only every other day, one-half to three-fourths day at a time. Impossible to get stock to run on longer.

E. C. ROSS.

MARYLAND.

Bel Air, Md., Sept. 2, 1905.

EDITOR CANNER:—Are having another good rainy day, which will tend to rot tomatoes and make prices more solid than ever. Tomatoes are good stock and any unfavorable conditions from now on only tend to make them still better stock. Packing is very slow, a good many of the Harford county packers only having put up about a car load of goods and a good many of the smaller fellows not that much. Watch out for that dollar.

FINNEY & ROBINSON.

Perryman, Md., Sept. 4, 1905.

EDITOR CANNER:—This is the poorest season for tomatoes that we have had for eleven years.

EDWARD V. STOCKHAM.

—

Princess Anne, Md., Sept. 4, 1905.

EDITOR CANNER:—The tomato situation has not improved. We had a heavy rain Saturday and another to-day. This week and next will practically make the 1905 pack. Very few goods were packed in August and, in my opinion, very few or none will be packed in October.

C. M. DASHIELL.

INDIANA.

Edinburg, Ind., Sept. 4, 1905.

EDITOR CANNER:—Tomatoes are very backward and are not setting on the vines. We shall not have over 50 per cent pack.

NAOMI CANNING CO.

—

Austin, Ind., Aug. 31, 1905.

EDITOR CANNER:—In this section the tomato pack will be about 50 per cent less than last year. We will pack a few more than we did last season on account of our acreage being a little more than double.

AUSTIN CANNING CO.

VIRGINIA.

Baldwin Station, Va., Sept. 2, 1905.

EDITOR CANNER:—As we said some weeks ago the prospects for the tomato crop is very discouraging. It is almost a failure throughout this section, and from what we can hear throughout Virginia. The tomatoes are not on the vines. It is now too late for the vines to fruit. Hence the packers, comparatively speaking, have none to pack. A good many of the canneries in the county will not run at all. None will be run steadily or on full time. We have in the last week received inquiries for prices in carload lots from several parties in Missouri and Arkansas, but we will not be able to pack enough to supply our local trade here.

AGEE CANNING CO.

—

P. O., Fleet, Washington Co., Va., Sept. 2, 1905.

EDITOR CANNER:—There are very few tomatoes packed in this section and the packers have but fairly begun. The prospect is a little more promising now than a week ago. If we have a favorable fall will probably have a half crop as compared with last year, but under most favorable conditions we cannot expect more than half crop.

HUFF BROS.

—

Daleville, Va., Sept. 4, 1905.

EDITOR CANNER:—Under normal conditions this (Botetourt) county packs more tomatoes than all the other counties of the state combined. This year the acreage in this county is not more than 60 per cent, and the yield not more than 40 per

LITTLE
QUAKER
PEAS
AS WE PACK SEVERAL DIFFERENT GRADES, PLEASE REMEMBER THAT THIS IS THE LITTLE QUAKER BRAND AND GUARANTEED STRICTLY PURE AND BEST QUALITY.
W. R. ROACH & CO.

cent of normal. We would say, therefore, that this county will not put up more than 25 per cent of a normal pack. An early frost would cut down this estimate.

NININGER & FRANTZ.

KENTUCKY.

Dixon, Ky., Sept. 2, 1905.

EDITOR CANNER:—To all appearances our tomato pack is now about over. The vines are blighted in all early fields, and late ones are covered with crab grass, from excessive rains and lack of work. DIXON CANNING CO.

—

Sebree, Ky., Sept. 2, 1905.

EDITOR CANNER:—The tomato crop is short with us. Too much rain in the spring killed all in low lands, but the quality is very fine. We are just getting enough to run half time. Have packed 5,000 cases and the crop has already begun to decrease. SEBREE CANNING CO.

—

Bowling Green, Ky., Sept. 4, 1905.

EDITOR CANNER:—It is almost impossible to make a correct estimate on our crop and conditions. The early crops have suffered very much from drouth and some of them will not make 50 per cent of a crop; but our drouth was broken here on the first and second of the month by good general rains over our territory and it remains to be seen how much good this will do the late crops. We do not think at present that we can count on over 60 per cent of a crop in general over our territory and the quality has not been as good as it was last year, but from this on we expect better quality of tomatoes. While we have an increased acreage this year over last we will not pack any more goods than last year.

E. A. CLORE.

MISSOURI.

Odessa, Mo., Sept. 2, 1905.

EDITOR CANNER:—The acreage is 50 per cent. Crop to date fully 100 per cent compared with the best years. To date we have packed 100,000 cans. Weather is good and there is a prospect for 100,000 to 150,000 cans more.

ODESSA CANNING CO.

—

Glasgow, Mo., Sept. 2, 1905.

EDITOR CANNER:—Since our last report weather conditions have been favorable except the heaviest rain of the season fell on August 22d, and another on August 24th, but cleared soon afterwards. We were able to run about three days this week. As a whole vines look well; a few complaints of blight and vines dropping leaves.

GLASGOW CANNING CO.

—

Concordia, Mo., Sept. 2, 1905.

EDITOR CANNER:—The week has been good for tomatoes in spite of the great damaging wind storm and heavy rains. Tomatoes have ripened nicely. The hurricane that swept over this country two weeks ago tore the vines all to pieces and many blossoms were destroyed. We have only about 100 acres of tomatoes out. We do not put up corn. We expect about 4,000 cases; if favorable season it may be 5,000 cases. It depends much on the fall weather

CONCORDIA CANNING CO.

Ash Grove, Mo., Sept. 2, 1905.

EDITOR CANNER:—The condition of the tomato crop is about as discouraging as we have ever seen it here. Last season our pack amounted to almost twelve cars. This year we doubt if we get two cars. Up to the present we have packed about 700 cases and will be compelled to reduce our run to once a week, with probably a three hours' run. The crop is so light that it hardly pays to operate, but we are under obligations to accept what few comes in. Our prospect during the first half of the season was never more flattering, but the excessive rains knocked the blooms as fast as they came on. ASH GROVE CANNING CO.

NEW JERSEY.

Cedarville, N. J., Sept. 4, 1905.

EDITOR CANNER:—Packing is going on in a very limited way in this section. The crop is short and outside buyers are taking the tomatoes at prices in excess of local canners.

J. E. DIAMENT CO.

—

Matawan, N. J., Sept. 2, 1905.

EDITOR CANNER:—The acreage of tomatoes is about the average, but prospect for the crop is about one-half. It is about two weeks late. G. G. WORTHLY.

—

Salem, N. J., Sept. 2, 1905.

EDITOR CANNER:—The situation of the tomato crop in our locality is a puzzle difficult to solve. The season opened early, with a heavy picking. Foreign agents infest all our shipping points and three-fifths to two-third of the crop so far has gone elsewhere. We are having frequent rains, and while the tomato plant can stand quite a siege of drought, it is not a hearty drinker. I think indications point to a speedy wind-up, with short pack. OWEN L. JONES.

—

Cedarville, N. J., Sept. 2, 1905.

EDITOR CANNER:—Our tomato pack to date is precisely 40 per cent of that of 1904, and the crop will be in by the middle of September, unless all signs fail. Of course, there will be some packing after that date, but the tomatoes have got to grow yet and what few there are are on the ends of the vines that are scalded and bare of foliage in many fields, and the size and quality of these tomatoes will make very few goods. Our pack will not be over 60 per cent of last year's and to do this well we must make up a big shortage for August. W. L. STEVENS & BRO.

—

HENRY DENNIS.

Williamstown, N. J., Sept. 4, 1905.

EDITOR CANNER:—The prospect for a fair pack of tomatoes grows less encouraging. We are running less than half time. The weather is too wet and tomatoes both green and ripe are beginning to rot badly. There is no late setting and the crop will be all gathered before October, we think.

THE J. V. SHARP CANNING CO.

ST. LOUIS.

Tomato Market Practically at a Standstill. Jobbers Looking on and Allowing Things to Take Their Course.

St. Louis, Mo., Sept. 4, 1905.

EDITOR CANNER:—There is really not very much, if anything, new to be said about tomatoes. So far as this market

The Albert Landreth Co.

PACKERS OF

LAKESIDE and EUREKA brands of PEAS

Our **LAKESIDE** brand is a fancy hand-picked, and the best **PEA** on the market. Our **EUREKA** brand, while a trifle cheaper, is a fine Extra Standard Pea and never fails to give satisfaction. Both brands are put up exclusively by us, and are strictly guaranteed to be exactly what the label represents.

Factories at MANITOWOC, WISCONSIN

is concerned business in this line is about at a standstill. Our jobbers have bought a few future tomatoes and some of them have a fair stock of spot tomatoes on hand, so they are simply looking on and allowing the market to take its course. In the meantime, there has been a very light demand from the retail trade for future tomatoes, and, as usual, unless the retailer buys, the jobber does not. Apparently both retailer and jobber were skeptical when the market began to advance and after it got away from them they concluded to wait for the demands of the consumer, and they are still waiting.

Naturally, there is very little demand from the consumer at this season of the year, when the market is plentifully supplied with fresh tomatoes. All the packers we represent throughout Indiana and Illinois report prospects very unfavorable. In the aggregate they will pack from present indications about 60 per cent of their normal output. These conditions, of course, may be materially changed by an open October and no frost.

Some business could be done at 85c, delivered St. Louis, but, so far as we know, nothing is offering at less than 85c f. o. b. Indiana, or factories taking the same rate of freight to St. Louis. With the consumption normal, this market will require a great many thousand cases of tomatoes in excess of what has already been bought this season.

GETTYS & GILBERT.

BALTIMORE.

Tomato Growers Jump Contracts with Packers, Cutting Down Quantity Available for Canning. Jobbers Anxious About Deliveries. Prospects For Pack do not Improve. East Interested in Western Pack.

Baltimore, Md., Sept. 4, 1905.

EDITOR CANNER:—Although peace has been arranged in the Orient, war has been declared in New Jersey and on the Peninsula. Very strained relations have been existing for several weeks between the tomato growers and the country packers. In some sections lawsuits have already been instituted on the part of the packers to prevent growers from shipping away their tomatoes and many other packers are threatening their growers to take out injunctions. With the market in Baltimore for raw tomatoes ranging from 65c to 75c per bushel of 60 lbs., it is a very great temptation to growers to ship their tomatoes here, even though they had them already contracted for to country packers. Buyers at nearly all the prominent stations of the railroads on the Peninsula are offering the farmers from 23c to 30c per basket cash for their tomatoes.

It takes a grower with some backbone and a very rigid idea of what is right to keep on delivering the tomatoes to a country packer at $6.00 per ton (which is about 10c p r basket), when he could get for them 25c by jumping his contract. Contracts are too lightly regarded at the two ends of the tomato-packing business, and the poor packer in the middle usually gets the worst of it. If the market is very high for raw tomatoes the packer has great difficulty in keeping his growers in line, and if the market should go down on the canned article he has equally as much difficulty in keeping his buyers in line and getting them to take in their sales of future tomatoes without serious trouble. On the other hand, if the market is high the packer gets held up for every case of futures that he has sold, and the jobbers nearly always want them in a hurry.

Last year the packers had great trouble in getting their future sales to stick, as many of the jobbers were extremely critical and tomatoes were turned down that any impartial committee would have decided to be full standards. This year the buyers are hustling packers all the time as to when they will make shipment, and of course they will naturally expect to have their contracts carried out. The whole situation, as far as packers are concerned, reverts back to the basic principle as to whether it is wise for them to sell futures or not. Personally I am firmly of the opinion that if the packers would get together and refuse to sell futures that would remove one very great obstacle in the way of their doing a successful business year after year.

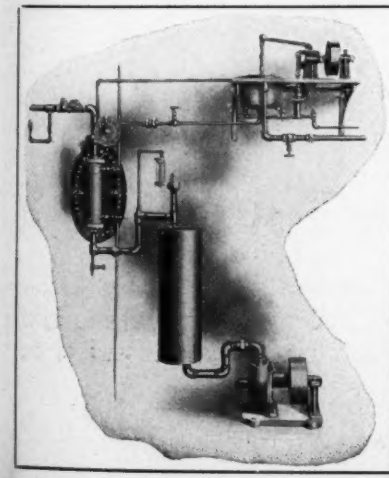
As far as delivery this year is concerned there is no doubt but what nearly all the packers who have made contracts with any clause in them giving them the right to make a pro rata or percentage delivery will be compelled to take advantage of that clause. The crop prospects do not improve; in fact, on the contrary, they seem to get worse instead of better. Many of the tomatoes that are now being shipped in to Baltimore look as though they were the last pickings of the patches, being of very inferior quality as a general thing. It is claimed now by good judges on the Peninsula that even in those sections where the crop is best there will not be more than a 50 per cent yield on a 60 per cent acreage. If that should prevail to any great extent it will mean that the output this year will only be from 30 to 40 per cent of last year. Much, however, depends upon the West. It seems to be a foregone conclusion in this section now that the pack will be very light.

One very significant fact as to the shortness of the crop is to be seen by the anxiety of the tomato catsup manufacturers to engage all the pulp they can. This article has practically gone begging the last two years, and it has been a drug on the market at $2.00 per barrel. The catsup men are after it this year at from $3.00 to $4.00 per barrel f. o. b. points where the pulp is manufactured.

Everybody here interested in the tomato question is anxiously awaiting definite information as to the crop prospects in the west. The size of the western pack will undoubtedly decide whether the price of tomatoes is to go over a dollar or not. The market here now is strong and advancing, being 85c per dozen for 3-lb. standards and very few offering. There will be more cans packed to the bushel this year than usual, and it requires no explanation as to how this will be brought about.

The corn packers are all very busy, but they are not getting as much corn as they expected earlier in the season, and it looks as though the present prices of corn are low. The market ranges as follows: 50c per dozen for Harford county style; 55c to 60c for standard Maine style, and 57½c to 62½c for standard shoepeg.

The packing of lima beans has commenced, but there is going to be a very poor crop. The market to-day is 90c to 95c for 2-lb. standards, and will likely go to a dollar.



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FOR FULL PARTICULARS ADDRESS

THE GEO. D. GARLAND

Gas Machine and Supply Co.

46 S. CLINTON ST., CHICAGO, ILL.

Baltimore packers are still putting up peaches, but even though they continue for ten days to two weeks longer the pack in the aggregate will not be more than from one-third to one-half of the average. The demand is very good and there will be little or no stock left on hand at the close of the season.

There is an almost unprecedented demand here for apples, both 3s and gallons. This comes about because the New York state crop is short. The market to-day is 65c for 3s and $1.95 for gallons, f. o. b. Baltimore.

There has been an exceptionally good demand for the full line of Baltimore goods during the week, but particularly for small fruits. As indicated last week, blackberries have again advanced and are now 70c per dozen. Other small fruits are following close behind.

TARTAR.

PORTLAND.

Corn Crop Making Little Progress. Weather too Cold. A few Factories Starting this Week. Gallon Apples Virtually Cleaned Up. The Blueberry Situation. Sardines.

Portland, Me., Sept. 4, 1905.

EDITOR CANNER:—Pleasant weather, with normal temperature has been the condition during the last week of August and the first of September. Enough rain has fallen to keep the ground in proper shape for the growing corn crop, but it came none too early. As the nights have been cool (warm ones are needed) the corn has not filled out as much as it otherwise would. In other words, the crop has stood still.

A few factories will practically start to-day, but only a few. Most of the packers have put up enough to see that everything is in working order, and that is all. From the appearance of the few cans that I have seen, the quality was fine, and if the frost keeps off (that "bug-bear" of Maine packers) the output will be as good as the finest pack ever put in cans. Prices are reasonable and the stock of fine corn was never so small. Buyers should not lay the "flattering unction to their souls" that there is fabulous increase of acreage in Maine. Such is not the fact. I doubt if there is as much as there was a year ago. Among a certain class of buyers who have yet to fill their wants, the "wish is father to the thought." However, packing time is now with us—soon we shall know. Statistics and not prophecies are in order.

There may be in all perhaps five hundred dozen of gallon apples unsold of last year's pack which are held at $2.25 factory. There is no certainty of this, however. I have only heard of one "future" contract at $2.25, and this was a "guess." Before long, after the corn crop is in order, packers will have something to say. "One thing at a time." The pack will be small, and the demand sufficient.

We do not hear much as yet about the blueberry pack. No one seems to fret over it. If none were packed it would not be a national calamity. Fashions change in foods as in wearing apparel. The masquerade of the whortleberry as a blueberry, clad in a garment of starch, and for all we know with a good washable indigo blue, did not help the sale of the genuine. However, truth will "put on its boots" later, and the real article packed in Maine and endorsed by reliable packers will again come to the front.

The sardine business has improved much of late. There seems to be a scarcity of small fish for oils, and an abundance of those used for mustard. I hear of prices from $2.20 to $2.30 for common one-fourth oils and $2 to $2.10 for mustards f. o. b. Eastport, but better grades are scarce and higher.

Bluebacks are still rather small. Large are coming. Present price is 60c f. o. b. Portland.

INDEX.

NEW ORLEANS.

New Orleans Jobbers Bought Future Tomatoes Before the Advance. Would not Sell Except at Stiff Advance Over Cost Price. Yellow Fever Has Little Effect on New Orleans Grocery Market.

New Orleans, Sept. 4, 1905.

EDITOR CANNER:—All the jobbers here bought very heavily of future tomatoes from two to six months ago and therefore the heavy advance brought about by short acreage and crop in the packing sections has only been beneficial to them, because, while a few were somewhat worried a few weeks ago when yellow fever was supposed to have its grip again upon this locality and began to unload a part of the purchases at low prices, but as soon as the U. S. Marine service took charge of the situation and the business saw there was nothing serious to be apprehended, they quickly changed their ideas and to-day would not sell their tomatoes at less than from 20 to 30 cents per dozen advance over cost price, according to brands and quality. New Orleans is in fine shape in both a business and physical way, notwithstanding the absurd rumors and paper reports throughout the other parts of the country. When you take into consideration that the deaths from yellow fever for the past few days only average about five per day in a population of 350,000, you can readily understand what slight ground there is for unusual fear. The grocers are all in fine shape and mind, and it is a matter of only a couple of weeks when the quarantine regulations of outside markets will be so altered that the retail trade in the country will call on New Orleans very heavily to replenish their stocks and business will boom here for a while at least. We do not think New Orleans jobbers will find it necessary to call on any of the packers for more tomatoes before next spring at the earliest.

AHRONS-SEIBERT CO. (Ltd.)

LOUISVILLE.

Business in Canned Goods Quiet. The Corn Market. The Tomato Market. Situation on Canned Fruits. Jobbers Have Had Good Business.

Louisville, Ky., Sept. 4, 1905.

EDITOR CANNER:—Business in general with the canned goods brokers has been extremely quiet. This, from more causes than one. About the only thing that is put in a can that you can find a seller for is corn, and about the only thing that you can't find a buyer for is corn. If you reverse this proposition, the articles are multiplied.

We have been endeavoring as faithfully as we know how for a week to get some venturesome packer to make us a price on tomatoes. As yet we have met with no success. Now, we know from general information that we receive that the packers here have not sold all of their pack. We also know that they are not going to pack anything like the quantities packed in previous years. Unless the season should be very much protracted and conditions change in every way. Tomatoes, however, are a peculiar article. They can start from the top of the ladder and you think they were going clear over. Just about the time they have a good start somebody's foot slips and away they go to the bottom. We always did think it was a good thing to sell an article when anybody else wanted it. We thing this is true of tomatoes that are still unsold in packers' hands.

The fruit situation is not materially different from the tomato situation, except in this one feature: tomatoes are like Tennyson's brook—the will go on flowing forever if Jack Frost don't catch them. But the fruit crop is made, the harvest is over, and from the best information we can receive, it is going to show up one of the shortest fruit years this country has had in a long while. Stocks in jobbers' hands in our territory are not heavy. Indeed, some of them will have to buy most articles even the despised corn.

Trade from jobbers' standpoint has been very active, and our jobbers have little or nothing to complain of except the ordinary summer slump.

WM. M. McKOWN.

SEATTLE.

Salmon Pack Drawing to a Close on all Parts of the Pacific Coast. Estimate of the Puget Sound Sockeye Pack. Fraser River Packers Claim Larger Output. Reported Cutting Prices on Sockeyes.

Seattle, Wash., Sept. 1, 1905.

EDITER CANNER:—The pack of salmon on all parts of the Pacific coast is drawing to a conclusion, as far as extensive operations are concerned. On Puget Sound the pack of sockeye salmon is concluded, and operations will be conducted only on a small scale this fall for silver salmon and chums. In Alaska the pack will be over by Sept. 15, or thereabouts. The Fraser river pack of sockeyes is all over with and in Northern British Columbia the pack of red salmon will be concluded very shortly. On the Columbia river the fishing season closed August 25, and the closed season started, during which time it is illegal for the cannerymen to buy fish or for the fishermen to take them. The fall packing season on this river has yet to come, however, the output of which may add considerably to present figures.

The pack of sockeye salmon on Puget Sound is estimated by a leading broker in Seattle as being 793,000 cases, about 150,000 of which are half-pound flats, estimated at four dozen to the case. As it takes eight dozen to make up a case

weighing as heavily as the case of pound flats and tails, it is necessary to cut the pack of flats in half to get a true estimate of the number of pounds, which brings the total pack down to 710,500 cases. The total pack, including silvers and humpbacks, is estimated as being 933,000 cases. Fraser river packers claim a larger pack of sockeyes than on Puget Sound, about 800,000 cases, with a total of all varieties of over 1,000,000 cases. This does not include the pack in Northern British Columbia, which will total at least 150,000 cases more.

A well known fisherman, just down from Alaska, estimates the pack from the canneries in the north as aggregating 1,600,000 cases of all varieties of fish, including reds, pinks, and silvers. Bristol bay was the most fortunate district, nearly every cannery in that section putting up an unusually large pack.

There has been a reported cutting in price on Puget Sound sockeyes which opened at $1.35 for pound tails, $1.50 for pound flats and $1.00 for half flats. Some packers were said to be selling out their pack on a basis of $1.25 for pound tails. This, however, has been denied by the leading brokers, who say that they have tried to trace the reports down and have received no confirmation of them. They say that a few very small holders may be cutting, but that if this is the case, they are selling fish of indifferent quality. While jobbers in the east are slow in taking hold of sockeyes at the present prices, the canners are determined to hold out until such a time when the jobbers must have their stock, which the conditions of the market indicates will not be very far ahead. Even now sales of considerable size at standard prices are being made.

The Kelley-Clarke Co. pronounce it as their opinion that the cut of the Alaska Packers' association on Alaska reds from $1.00 down to 85 cents, will not necessarily affect the price of sockeyes, though it will have a bad effect upon the market for silver salmon. SOCKEYE.

NEW YORK.

The Singapore Canned Pineapple Market. Light Demand at New York.

New York, Sept. 2, 1905.

EDITOR CANNER: Our weekly cable from Singapore reporting the pineapple market makes no offering of the winter pack for whole cored or sliced goods. Advance 1½ lb. chunks 1½d a dozen and reduce 1½ lb. cut chunks ½d. The S. S. Sagamy and Atholl have discharged and all the goods shipped to the trade. The S. S. Montrose is due shortly, having on board 1,230 cases, and the market is quiet, with few demands either for immediate or future shipment.

THE PAUL TAYLOR BROWN CO.,
F. S. K.

Withdrawal of Prices on Red Alaska Salmon Sensation of of the Week. The Domestic Sardine Situation. Reselling by Jobbers Undermining Firmness of Tomatoes. Corn Market Quiet.

New York, Sept. 4, 1905.

EDITOR CANNER: Again the Alaska Packers' association has supplied the sensational feature of the market by suddenly withdrawing the low prices on red Alaska salmon and announcing that the quotations of July 6 would be in force after the first day of September. It was said by the representatives here that all the old salmon held by the association has been sold and that the 1905 pack is sold to be delivered upon the arrival of the fleet. While the excitement caused by the unexpected cut had died down before the announcement of the return to the higher prices, there was still an active trade. It is said now that buyers are not showing much interest in red Alaska and that trade has stopped since the price was put back at $1. It would be interesting to know just what has been accomplished, but beyond general terms in which the representatives here say that they have sold more than $2,000,000 worth very little information can be obtained. They are very reticent and in nearly all instances refuse to answer questions even. Meanwhile sockeye fish has improved, principally because of the fact that large sellers will not shade prices. The shortage has caused some discussion here, but no one knows yet the exact pack. Columbia river chinook is firm and holders are loath to accept orders at anything under the highest prices. Spot prices are: Columbia river talls, $1.65@1.75; flats, $1.85; halves, $1.05@1.10; Alaska red talls, $1.02½@1.13½; medium red, $1; sockeye talls, $1.60@1.67½; Alaska pink, 87½@90c; Cohoes talls, $1.05; flats, $1.15@1.17½.

Reports up to within a few days have declared that the run of sardine fish on the Maine coast has been very light, much lighter than usual, and the pack correspondingly short. Latest reports reverse these conditions and indicate that the fish are exceedingly plentiful and that the obstacle to free packing has been the difference over the price of raw fish. It has been settled now by the fishermen agreeing to accept the packers' figures. The result of this improvement in the situation is reflected in the tone of the market here. While nominally prices are $2.50 f. o. b. Eastport for key quarter oils, there are offers to sell at $2.20, and some purchases have been made at that rate. It is said that even the lower price can be shaded. Demand is only fair, many buyers believing that there will be a still further decline later. Spot prices are: Domestic quarters in oil, $2.65@2.75; three-quarter mustards, $2.40@2.50; three-quarter spiced, $2.45@2.50.

The strength of tomatoes, as far as packers are concerned, is increasing daily, but jobbers are undermining the firmness of the market somewhat by reselling goods bought at a much lower figure. This has a tendency to unsettle the market and create unfavorable conditions. The quantities thus far sold in this way have been too insignificant to exert much influence on the market, but such sales are a natural result of the rapidly increasing firmness of the past two or three weeks. No change in prices has occurred and such transactions as are recorded are at full figures. Just what the jobbers are doing or how much they are underselling under the present market it is impossible to say. Spot prices are: Maryland 2s, 65c; Maryland 3s, 85c; Maryland gallons, $2.85; New Jersey 3s, 87½@90c; New Jersey gallons, $2.35.

Much is being said regarding the corn crop in various sections, and buyers have given the matter considerable attention of late without really discovering anything of importance. The strength of the corn market depends altogether at this season of the year upon the crop situation, and dealers are always anxious to obtain information respecting the development of the crop in different producing sections. Should authentic reports of a shortage arrive there would be a skurrying to buy which would make a very active market. At present the market is flat and nothing new has been done or said. Spot prices are: New York state 2s, 80@85c; Maine 2s, $1.05@1.10; Maryland Maine style 2s, 77½@80c; western, 75@80c.

Nothing new developed in fruits. Peaches and apples were both held firm at quotations, but without movement. Prices are too high for buyers to take hold. Supplies of gallon apples are reduced, but that doesn't seem to make any difference with the prospect for the coming pack. New York state 2s are held at $2.50@2.60 and Maryland gallons are held at $2@2.25. HARLEM.

NEW YORK DRIED FRUIT MARKET.

Holders of Prunes Firm in Their Views. Little Business at Prices Asked. Some Inquiry for New Peaches.

New York, Sept. 4, 1905.

EDITOR CANNER: Holders of prunes have shown a disposition to ask increased prices during the past few days, and inquiries for new crop Santa Clara on a 3½c basis have been declined. The lowest figures sellers are willing to consider is 3¾c and a number of prominent holders have fixed their prices at 4c. At these figures no business is being done with holders. There is no special anxiety among purchasers to buy; evidently most of them believe that a little later they will be able to get stock at less money, or at least no more, and they will be spared the expense of carrying them. Probably not a full car has been sold the past week, or if there have been sales they have been kept under cover and are not reported. Spot prices are: 40-50s, 7¼@7½c; 50-60s, 5¾@6c; 60-70s, 5¼@5½c; Oregons, 30-40s, 6¼@6½c; 40-50s, 5⅜c; 50-60s, 4⅛@4¾c.

There is some inquiry for new peaches for September shipment from the coast, but buyers have difficulty in getting holders to quote, and it is next to impossible to discover just what is being done. The prices named by holders are so much higher than buyers are ready to pay that practically no business is being done. Spot prices are: Fancy, 11½c.

There is nothing new to report in the raisin situation. A few sales are made, but they are too insignificant to attract attention or to make any difference in the market. Old crop goods are practically exhausted and the trade now is waiting for the announcement of prices on new crop stock. Imported stock to arrive, both Valencia layers and Smyrna Sultanas, are reported to be selling freely. Spot prices are the same as quoted last week and need not be repeated.

HELLGATE.

FRUIT NOTES

Reports from New England indicate good fruit crops, with the exception of apples, which are described as poor.

* * *

New York advices indicate a scarcity of apples. Pears are reported generally plentiful, and peaches and grapes good. Apples are dropping in Pennsylvania orchards. A fair peach crop is reported from that state.

* * *

Apples seem to be plentiful in orchards throughout Maryland and Delaware. More favorable reports on apples are received from the northern portion of Virginia.

* * *

In Washington state it has been too dry of late for fruit. The Washington prune crop is reported ripening rapidly.

* * *

Kansas advices indicate a fair crop of apples this season. Reports from orchardists in Oklahoma and Indian Territories indicate that apples are falling extensively. A light crop of apples is being had in Arkansas orchards.

* * *

The eastern states will not have as many apples to ship west as last year. The promise for the New England and New York state crops is very uncertain, though, notwithstanding this, buyers have succeeded in contracting for orchards in many instances at low prices.

Reports from points in Tennessee say that apples have mostly fallen from the trees, and in Kentucky continued dropping is reported. The crop in Kentucky is inferior. A light peach crop is ripening in that state.

* * *

Apples are scarce this year in Missouri orchards. In Illinois there is also a scarcity, as considerable dropping has occurred.

* * *

Indiana reports indicate a light apples crop. The yield of plums, peaches and pears is reported fairly good.

* * *

Less than half a crop of apples is promised in West Virginia this year, and other fruits are reported to be quite scarce.

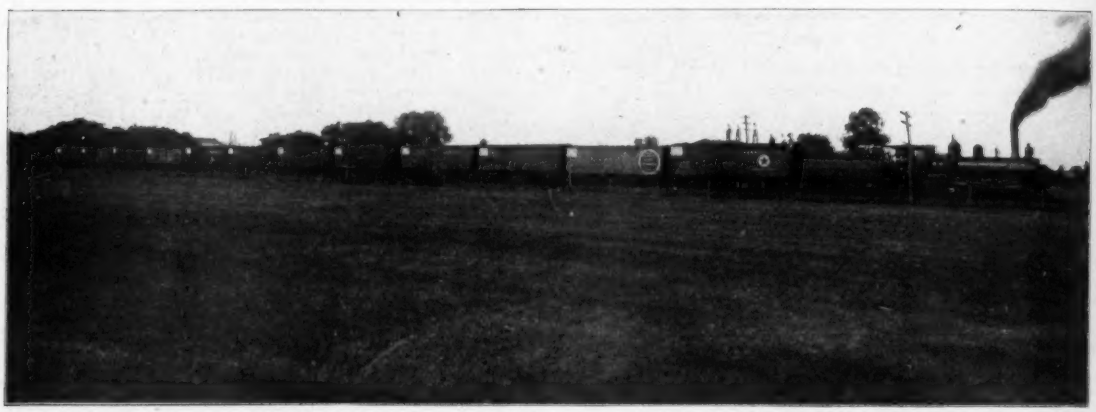
* * *

Peaches are a fair crop in Ohio, with other fruits scarce and of poor quality.

* * *

The summer meeting of the New York State Fruit Growers' association some days since is reported as the best ever held by that well known and useful organization. The attendance numbered about 400, and an unusually practical and interesting program was gone through with.

A Train Load of Lye Hominy.



The above picture shows a train load of canned lye hominy packed by the Crothersville (Ind.) Canning Co., making the largest single shipment of canned hominy ever made.

The Crothersville Canning Co., whose hominy enjoys a national reputation, was incorporated in 1895. The first president of the company was Preston Rider, the well-known Indiana packer, who held office until March, 1905, when Mr. Rider disposed of his interest in the corporation to Allen Swope, W. W. Isaacs and F. Joseph Schuler, who bought enough of the stock to give them the controlling interest. Since taking charge the gentlemen named have increased the business to such an extent that they now find it necessary to keep the factory in operation throughout as much of the year as the weather will permit.

The corn used in the manufacture of this famous hominy is carefully selected. So painstaking, in fact, is the management of the Crothersville Canning Co. to obtain the best quality of corn that growers are paid a premium on stock grading up to the required high standard. Water is another important consideration. The company uses none but what is absolutely pure. There is no adulteration or impurity of any kind used in its product, and the immense size of this shipment, it would seem, proves its popularity.

Crothersville lye hominy is handled by the leading wholesale grocers in all parts of the United States where hominy is sold and high quality demanded. In such localities there is a constantly increasing demand for it.

Allen Swope, president of the Crothersville Canning Co., is a well-known Indiana business man and stands high in local political circles, having represented his county in the state legislature three successive terms.

Vice-President W. W. Isaacs of the company is a large land owner who at present is serving his second term as county treasurer of Jackson county, Ind.

Secretary-Treasurer-Manager F. Jos. Schuler has been in the general merchandise business at Crothersville since 1888. He is a member of the firm of Swope & Schuler of that place.

Superintendent F. J. Hope is a practical canner of many years' experience. Lye hominy is one of his specialties and the maintenance of the high quality of the Crothersville product receives his constant care.

CANNED GOODS NOTES

ILLINOIS.

The Sycamore canning factory is running on corn. We hear that it has about 1,000 acres out.

* * *

Work at the Watseka canning factory is under way. The proprietors have 500 acres planted in sweet corn, which will be packed during the season.

* * *

According to the Pontiac "Leader," the Louis McMurray Packing Co., located there, has been experiencing some difficulty in getting competent help to operate the plant.

INDIANA.

J. M. Paver, Sr., trustee in bankruptcy for the Faulkner-Webb Company, has sold the Brownsburg canning factory to the John Boyle Co., Baltimore, Md. Trustee Paver also sold the plant on South Capitol Ave., Indianapolis, to Samuel Falander & Co. for a consideration equal to $100 a front foot.

* * *

The cannery at Clay City, Ind., is running on tomatoes. The factory is reported running to its full capacity.

* * *

The Frankfort "Crescent" says: "The canning factory is a busy place just now. The season is fairly on for canning corn. New machinery has been added and the plant is better equipped this year than ever before. A larger acreage was put out last spring than usual and the pack promises to be a big one. The recent rains made the corn crop fine and large. Tomatoes are doing well and if frost does not come too early a big pack is assured on this vegetable."

* * *

The canning factory at Cambridge City, Ind., opened some days since for the season. A report from Cambridge City states that the outlook is for a profitable run.

* * *

The canning factory at Shelbyville has been putting up large quantities of sweet corn. Two hundred hands are reported employed.

* * *

According to the Lebanon "Patriot," the American canning factory is running on both corn and tomatoes. The "Patriot" says that the quality of both is very good.

* * *

A recent dispatch from Greenwood, Ind., stated that "The J. T. Polk canning factory, of this place, is receiving almost 300 tons of sweet corn a day, and is running day and night to dispose of it. About fifty women and girls are assisting in the shucking sheds. Tomatoes are coming in slowly. Farmers say the vines are too thick to allow them to ripen properly."

MICHIGAN.

The Traxler canning factory, says a report from Hartford, Mich., will continue to run on peaches for several weeks.

* * *

The following item is reprinted from the Benton Harbor "Register": "The Eau Claire canning factory has been dismantled and the machinery shipped to Ohio. Some of the stock was purchased by Benton Harbor parties. What disposition will be made of the building is yet to be decided on."

IOWA.

The Merrell Canning Co. have their corn plant at Harlan, Ia., running, according to report, at its full capacity. The yield and quality of corn about Harlan is said to be splendid.

* * *

The Baxter Canning Co.'s factory at Wapello packed in one day recently 106,000 cans of corn, which, we believe, is the record for that plant.

* * *

The Iowa Canning Co.'s factory at La Porte City, Ia., which commenced operations recently, will pack the product of about 1,000 acres of sweet corn this season.

WISCONSIN.

The Chippewa Falls, Wis., "Independent" of recent date said: "The corn crop is looking well and about the last of this or the first of next week the factory expects to be running again night and day until the crop is harvested."

* * *

The Wm. Larsen Co. factory at Green Bay has been putting up beets and is now packing corn. The canning of sauerkraut will commence some time in the latter part of September.

* * *

The Fond du Lac Canning Co.'s factory has been sold to the Nehrbass Casket Co., the consideration being $12,000. Stockholders in the canning company are to take this amount in stock in the casket company.

* * *

The Jennings Canning Co.'s factory at Sturgeon Bay has closed down after, the Sturgeon Bay "Democrat" says, "a very profitable season."

OHIO.

The plant of the East Toledo, O., Canning Co. is running on corn and tomatoes at present. A report from East Toledo says: "The quality of the tomatoes this year is reported to be excellent, but there are not as many on the vines as usual. Later in the year this factory will put up corn and beans.

NEW YORK.

The canning factory at Whitesboro, N. Y., is running on its annual corn pack.

* * *

Although the Wolcott canning factory has put up a quantity of string beans, reports from that vicinity state that the crop has proved practically a failure, owing to heavy rains, moist air and hot sunshine, which caused rust. Instead of being the old-fashioned rust, report from Wolcott states that it is a parasite that causes a mildew to form on the beans that renders them unfit for packing.

* * *

The Fort Stanwix Canning Co., Rome, N. Y., had in its employ during the string bean canning season 700 Italians in a 160-acre bean field. Nine hundred and twenty barrels of string beans for the factory were picked in one day.

* * *

The Stittville (N. Y.) canning factory finished canning string beans a couple of weeks ago and is now running on sweet corn.

MAINE.

The blueberry factory of J. A. Coffin at Columbia Falls was destroyed by fire August 31st. Loss, $12,000.

* * *

For the first time in several years the corn factory last run by A. & R. Loggie will be opened, as well as the new one at Gardiner, Me. The packers have put in modern machinery and expect to turn out strictly fancy and pure Maine corn. Henry Dennis, of Portland, Me., is selling agent.

MISCELLANEOUS.

The Fogelsville, Pa., cannery is being operated on corn. Manager Hittle expects to put up apples after the corn pack is finished.

* * *

The tomato canneries at Smyrna, Del., are reported running full blast, though, it is said, they will put up only about half an average pack.

* * *

The canning factories at Kaysville, Woods Cross and Syracuse, Utah, are running on tomatoes. The Utah pack, owing to blight, will be smaller than last year.

* * *

The canning factory at Leavenworth, Kansas, will confine its operations this season to tomatoes and corn, though some pumpkin may be packed in the fall.

* * *

A report from Rollo, Mo., says: "The canning factory started Monday and are taking care of all the tomatoes that come to market."

PACKERS' CANS

We are prepared to furnish the trade the BEST LOCK SEAM CAN that can be produced. Our factory is equipped with the most modern Automatic Machinery in use. Our capacity is the

largest of any Independent Can Manufacturer in the United States. Our location and shipping facilities enable us to ship promptly and in any direction from Wheeling. Correspondence Solicited.

WHEELING CAN COMPANY,
Wheeling, W. Va.

Spiceland, Ind., Jan. 2, 1905.

Gentlemen: Yours of Dec. 27, 1904, received. The fact that we have placed our orders for 1905 Can with your Mr. Dugdale is the greatest evidence that we were pleased with the Cans you furnished during the season of 1904. However, we might add that from the half million and over Cans received, we had the fewest leaks that we have ever had from like number of Cans. They were certainly a fine lot of Cans.

Yours truly, CITIZENS CANNING CO.,
By Edwin Hall, Sec'y.

WHEELING CAN COMPANY

WHEELING, W. VA.

OLIVER J. JOHNSON, MANAGER
FORMERLY WITH
SPRAGUE CANNING MACHINERY CO. AND UNION CAN CO.

SALES AGENCY FOR INDIANA AND KENTUCKY
301 MAJESTIC BUILDING, INDIANAPOLIS, IND.
WILLIAM DUGDALE, SALES AGENT

National Canners' Laboratory.

By Edward W. Duckwall, M. S., Bacteriologist.

Prof. Duckwall's reports on work done in the National Canners' Laboratory are published exclusively in THE CANNER. They appear in the first issue in each month and cover the Laboratory work during the month immediately preceding their publication.)

During the past month there were ninety-four cases sent in to the laboratory for chemical and bacteriological analysis. Beside these there were three or four letters nearly every day asking for suggestions that might be helpful in preparing canned goods and other manufactured food products so that they would be better in quality, comply with all pure food laws, please the consumer, and thus help the sale of manufactured goods. It is indeed remarkable how the work of this institution has increased within the last year. The work done in the month of August is almost equal to that done during the entire year of 1904. To give a complete list of the analyses and methods employed would be out of the question for a laboratory report limited to the space we usually take up each month, and a great deal of it would be a repetition of that we have already detailed in previous reports, so we confine ourselves to a description of some work which is interesting to the great majority of the packers from the fact that so many have submitted similar cases for investigation. The following will illustrate the variety of work done for the various subscribers:

Bacteriological work on peas to discover the cause of spoilage in swelled goods and sour goods and also peas which had turned bitter; on corn which had soured, swelled and become discolored; on meats which had become discolored; on plums which had swelled; on water, to determine the presence of typhoid bacilli; on wax beans and Refugee beans, to determine the cause of swells and of sour goods; on vinegar stock, to determine the cause of viscous fermentation of the apple juice and consequent right-hand reading on the polariscope; on peaches, to determine the cause of swells; on spinach, to determine the cause of swells and putrid decomposition; on preserves and jellies, to determine the cause of fermentation and mold; on fruit juices used in the manufacture of soda water syrups, to determine the cause of cloudiness; on cheese, to determine a means of preventing the formation of harmful molds; on canned goods, to determine whether spoilage was due to leaks or to insufficient sterilization. A great variety of similar analyses were made during the month.

The chemical work was even more varied. It comprised the analysis of about fifteen different samples of water in order to determine whether it was fit for canning purposes and also whether it contained any ingredients which would injure the quality and flavor of manufactured food products. In order to cover this subject fully we publish an essay on the use of water in canning, which should prove very interesting to our readers. Various samples of a preservative, benzoate of sodium, used in tomato catsup and other food products, were analyzed to determine their purity. Analyses were made of lemon and vanilla extracts in order to determine whether they were absolutely pure. A sample of butter which had been declared illegal was also analyzed to determine the presence of foreign fats. Considerable work was done on tin plate and solder in order to determine the purity of the tin and also the percentage. Several samples of vinegar were analyzed to determine their strength and purity. Besides this, there were sent in for chemical analysis samples of sugar, salt, soldering solution, ground mustard and corn starch.

A detailed account of all this work would, as I have said, be too voluminous for the space allowed, and we will therefore confine ourselves to a few subjects which may be interesting to the manufacturers everywhere.

Spoilage of Fruits.

———, ———, July 20, 1905.

National Canners' Laboratory,
Aspinwall, Pa.

Dear Sirs:—We are sending two cans of heavy syrup Green Gage plums to be examined by you. These goods were packed in August, 1903, and were cooked 16 minutes. They were packed in 30 degrees syrup. We also send two cans each of peaches and pears. Kindly let us know as to cause of spoilage.

The peaches were not sterilized sufficiently. The cause of the trouble is due to the presence of Saccharomyces apiculatus. These occur in the fluids of fruit juices as lemon-shaped cells. The cells are sometimes elongated, crescent or rod shaped. They multiply by sending out two kinds of buds, one oval and the other lemon-shaped. No spore formation is observed. It is a spontaneous ferment from the air in ordinary fruit juices, found during the season upon the fruits. In winter it is found in the soil under the trees. This trouble can be prevented by a little longer sterilization of the goods.

Pears.—The swelling in the cans is due to the fact that the tin has become perforated, allowing a free entrance of bacteria from the air.

Plums.—The swelling in the cans is due to the presence of carbon dioxid gas. No bacteria are to be found in these cans. The gas is liberated by the sprouting of the embryo of the seeds of the plums. When seeds germinate carbon dioxid is given off in considerable quantities. On breaking open several plum pits it will be noticed that the seed in some of these is dark-colored; others are white. The dark-colored ones are dead, the enzyme causing the germination of the seed having been killed during the process of sterilization. Those that are white have not been destroyed and are the cause of the trouble. The seed may lie dormant and afterward begin to germinate, when the carbon dioxide is given off, which causes the swelling of the can.

The cans of plums are in fine condition, the quality of the goods not being affected by the swelling of the can. If these goods were consumed inside of a year it is not likely that there would be any trouble from this cause. The only way to prevent it is to sterilize the goods sufficiently to destroy the germ of the seed.

Investigation of Sour Peas.

"We find some sour peas among our pack," writes a canner. "We are sending you some samples of our sweet wrinkled peas; we find some of them sour on cutting," writes another.

When a packer suddenly finds that part of his goods are souring, and knows that perhaps thousands of cases have been distributed among the grocers, it is a very serious matter. A packer may spend years in building up a trade on his brand of goods, and yet his trade and reputation will suffer greatly if he has been so unfortunate as to ship out sour goods.

"What is the best thing to do under the circumstances? How are we to know where we stand? How are we to determine which goods are sour and which are all right? Is the trouble progressive? What caused it to happen on certain days? Has the weather anything to do with it?" These are some of the questions constantly put to us, and in order that the canners throughout the country may know just what to do in such cases we describe how one case was managed:

Upon receipt of the samples, a thorough bacteriological analysis was made, after the cans had been incubated for twenty-four hours. The cans bore various dates, showing when they had been packed, and the sizes of peas were also indicated. There were in this case three different kinds of spoilage; some of the cans swelled and a common anaerobic pea bacillus was found to be the cause; some were sour, the liquor being clouded in some cases so much that it looked like soapy water; in other cases it was almost clear; some cans contained peas which were extremely bitter (the liquor being almost as clear as water), this was due to a motile spore-bearing bacillus which changed the sugar into a bitter compound tasting like quinine.

Some of the cans were not infected, and the flavor of these was fine; nothing better was ever seen in tin cans. These goods had been processed too near the danger line, which is somewhere between 236 and 240 degrees F. on a 35-minute exposure. Sour peas were found among the cans packed on various dates, the good and bad cans were mixed throughout, but each day's pack was carefully piled by itself, which greatly facilitated the work of finding and detecting the extent of the trouble.

The spoilage was localized and the percentage ascertained, and this was the method: We suggested an investigation right in the factory. We took the microscope and the opening of cans began, and the bacteria were found by the aid of the microscope where neither the taste nor odor would show their presence. Can after can was cut open and from each a single drop of the juice was transferred to the microscope and it was either good or bad, depending on the pres-

ence of bacteria. There was no guesswork here, we were dealing with facts; no speculating whether this or that can has a peculiar taste, the microscope always revealed the condition.

Having ascertained just what piles were affected, the next move was to sterilize the entire pile of cans at a temperature of 240 degrees for a limited time. After the reprocessing the good cans were separated from the bad cans by exposing them to various temperatures in a water bath. This is very difficult work, requiring good judgment, and should not be attempted by anyone not familiar with the expansion of gases.

During the corn season which is now on, we suggest that every packer send samples into the laboratory constantly and should anyone have sour goods let us investigate on the ground.

Swelled Peas.

A prominent packer sends in six sample cans of 1905 pack of peas and the following report was given him:

A very careful bacteriological examination was made of the six cans of peas. There were three swells and three which appeared to be all right. Agar slants were inoculated from the three cans that were swelled, the juice being removed with a sterilized platinum needle plunged through a hole opened in the end of the can, a gas flame being held over the bottom of the can during the entire operation. This was to avoid any contamination from the air. A most remarkable thing about the bacteria obtained is that they are lactic acid bacteria. This species of micro-organism cannot live through a boiling process; a temperature of 170 degrees Fahr. will destroy them. They are not spore-bearing, and were not there during the sterilizing process, and their presence can only be explained in one way, and that is that these cans were leaks. A leak was found in one can, but although the soldering on the other two cans was carefully examined, no leaks were located, yet this is the only solution that can be offered. The other three cans proved to be free from bacteria. They were incubated for three hours and the juice of the peas then examined under the microscope was found to be entirely free from any bacterial growth.

These goods were somewhat mystifying, because the leaks could not be found in the two cans, but frequently leaks will be so small as to escape the most careful scrutiny, and a leak, if small, is sufficiently large to admit any number of these lactic acid bacteria—50,000 of them could pass through an ordinary pinhole without touching the tin.

One other solution *might* be devised, and that is that the peas were not sterilized at all, but this is overthrown by the fact that the peas appear to have been processed and were tender when pressed between the fingers. A process sufficiem to have accomplished this would have destroyed these lactic acid bacteria. Lactic acid bacteria are not spore-bearing organisms. If spore-bearing organisms had been found in the three swell cans the conclusion would have been that the sterilizing process was insufficient, but the presence of the lactic acid bacteria in the can known to be a leak and in the other two proves that they were all leaks.

Analysis of Starch.

——, July 31, 1905.

National Canners' Laboratory,
Aspinwall, Pa.

Gentlemen:—We are sending you under separate cover two samples of starch which we wish you would analyze for us as soon as possible. Yours truly,

———————.

We find that sample No. 1 is a pure corn starch containing no impurities. Sample No. 2 is also a corn starch, but contains small quantities of foreign matter, which seem to have come from the corn itself and are probably particles of the mesocarp of the corn. We would therefore pronounce the sample first mentioned as being a slightly better grade of corn starch.

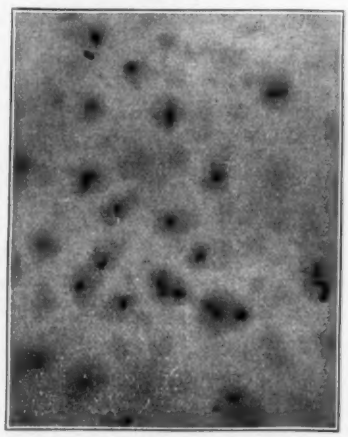
An examination of starches to determine the kind and also the purity of the starch is made by the use of the microscope, using a magnification of about 200 diameters. The sample in question is moistened with a very dilute solution of caustic potash. It is then placed under the microscope and a careful examination made of the entire field. Each kind of starch has a peculiar form of grain which is easily recognized by the aid of the microscope. Materials not starch, such as might come from the covering of the corn used in preparation of the starch, or foreign materials which might be used to adulterate the starch, are easily recognized in this manner. In a mixture of starches the different kinds can be determined as to their relative quantities by taking note of the number of grains present in each different starch.

Work on Viscous Cider.

During the month a prominent vinegar manufacturer sent in to the laboratory a sample of cider vinegar stock which had undergone a ropy or viscous fermentation, inquiring as to the cause of this fermentation and what substances were produced by the fermentation. The organism which was found to be present in the cider is a most interesting one, as it produces a substance which gives a right-hand polarization of light in the cider. This organism is a bacillus .6 to .8 microns broad and 2 to 6 microns long. It grows in chain form, producing a gum or mucilage. Upon staining the organism we could distinctly trace out all around the germs the mucinous matter. It produces very beautiful photomicrographs.

The substance which this bacillus produces is not a gum, but a substance technically known as a hexad alcohol known as mannite. Mannite is generally supposed to be formed by the lactic acid fermentation of sugar. In this case the bacteria attacked the levulose and dextrine in the cider, changing them into a black gum and mannite, separating out water and liberating carbonic acid gas. It is the mannite which produces the right-hand polarization of light. This substance crystallizes in needles or rombic prisms, is readily soluble in water and alcohol, and has quite a sweet taste. Mannite grows naturally in the dry sap of certain species of ash, as Fraxinus ornis and Fraxinus rotundifolia. It also grows in olives and celery, sugar cane and in some of the fungus-like plants. It is very closely related to the carbohydrates, that is, sugars and starches. The action of this bacillus upon the levulose and dextrose may be given by the following equation:

PLATE III.



Bacillus Viscosus Veni; Grows in Chains; Spores are Ellipsoidal, and Produce Viscous Fermentation in Wine and Cider.

$$25C_6H_{12}O_6 + 25C_6H_{12}O_6 =$$
levulose dextrose
$$12C_{12}H_{20}O_{10} + 24C_6H_{14}O_{10} + 12H_2O + 12CO_2$$
gum mannite water carbon dioxide

The bacillus which is the cause of this viscous fermentation is called Bacillus Viscosus veni. It is the one which commonly causes ropiness in wine. In handling vinegar stock or cider, in case any should become infected with these bacilli, it is very important that the greatest of care should be exercised in order to prevent further contamination. It is a very interesting micro-organism and one which is worthy of study, owing to the peculiar chemical changes which it brings about, and especially owing to the fact that in a substance which naturally has a left-hand polarization this bacillus changes the ingredients into other forms which have a right-hand polarization.

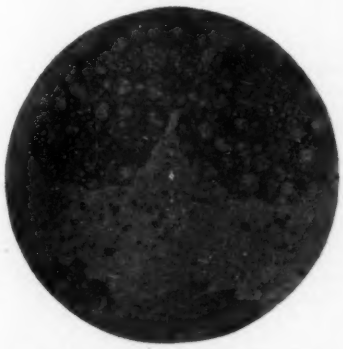
In the standard methods for analyzing vinegar for purity a certain left-hand polariscope reading is now required, but it can readily be seen that in case a viscous fermentation of any kind had taken place in the original vinegar stock this left-hand polarization would be reduced and perhaps entirely destroyed, so that a pure cider vinegar might not come up to the required standard of left-hand polarization.

The Adulteration of Ground Mustard.

A short time ago a case was brought to our attention of

the reported adulteration of ground mustard. One of the prominent chemists of an eastern state made an analysis of a guaranteed pure mustard from one of the leading manu-

PLATE I.



Mustard adulterated with wheat starch. Mag. 130.

facturing houses of the east, and reported that this mustard was impure, being contaminated with foreign starches, and a case was at once brought against the retailer from whom the sample was taken. The company from whom the mustard was bought of course immediately contested the case. A prominent eastern chemist was employed by this firm, and he gave a report stating that in his opinion the mustard was free from any adulteration. In order to make sure that his report would be accepted two chemists of the National Canners' Laboratory were employed to make individual analyses upon this mustard. Each submitted reports to the attorney for the defense; both of these reports were almost identical and also agreed with the report of the chemist who had first made the analysis.

PLATE II.

Ground Mustard. Magnified 130.

Ground mustard is intentionally adulterated by the use of some foreign starch and plate No. 1 is a photomicrograph of mustard adulterated by the use of wheat starch. Plate No. 2 is an illustration of pure ground mustard without the removal of the oil, which corresponds to the analysis which we made of this mustard. Anyone without previous experience can readily see the difference in these two plates. The only analysis that is made of ground mustard is by the use of the microscope, previously staining the sample with iodine or else by the intensification of the starch granules by means of 20/N potassium hydroxide. We are aware that adulteration of spices has been practiced to a considerable extent in this country during the past few years, although we believe that such adulteration is decreasing very rapidly.

The Use of Water in Cans.

During the past six weeks a great number of samples of water have been received in the laboratory for analysis, in order to determine their suitability for use in the canning of fruits and vegetables. Canners everywhere now realize the necessity of having water of the highest quality for their use.

In order that water may be suitable for use in the manufacture of food products, it must not impart a disagreeable odor or flavor to the goods, it must not attack in any manner the container, nor in any way affect the general appearance of the goods in which it is used. As water is an almost universal solvent it is impossible in a commercial way to use water which is strictly pure, so we must therefore at all times have to deal with water which contains more or less foreign matter, principally in the form of inorganic salts, such as hydroxid of iron, lime, magnesia and soda, which is generally in the form of common salt. Many waters also contain some organic matter and may also contain ammonia and hydrogen sulphide gas. These are what are generally termed the chemical constituents of water. Some waters have a cloudy appearance, which is caused by clay and silt, which are finely divided particles of earth simply held in suspension by the water. These would be dealt with as physical characteristics of the water.

Considered from a bacteriological standpoint, all waters contain more or less organisms which may produce fermentation, but are of a harmless nature and would of course be destroyed in a sterilizing process. These would be of no importance and are generally known as the non-pathogenic bacteria. Other bacteria may also be present which produce diseases and are commonly termed pathogenic bacteria. These, too, would be destroyed by the action of heat, and generally we find that if the water answers all the chemical requirements for canning purposes, it is not necessary to consider the bacteriological side of the question, which plays a much more important part in water intended for household purposes.

What the practical canner may wish to know is, first, what the water that he is using contains, and what effect impurities may have upon the kind of goods that he may be packing. We will endeavor to briefly explain the action of the various constituents of ordinary water upon canned goods and their containers. The salts of iron, principally hydroxid of iron, are present in a great many of the waters used for canning purposes. Iron should be absent from all waters used for canning purposes, especially from water used in canning corn. Iron has a tendency to turn corn dark colored owing to the deposits of ferric oxide upon the surface of the corn. This trouble, however, is more prevalent in the west than in the east. At present there is no practical method of removing any considerable quantity of iron from water.

Calcium salts as a rule are present in all waters, as calcium carbonate is rendered soluble or dissolved by carbon dioxid, which is found in all water. The salts of calcium play an important part in the preservation of both fruits and vegetables. It is a well-known fact that cereals boiled in hard water will never become soft, as the calcium carbonate forms an insoluble compound with albumen. In the preservation of fruits, if a large percentage of calcium salts are present, insoluble compounds are formed, especially in such fruits as pineapples and cranberries, and calcium may also unite with the sugar used in their preparation, which causes what is ordinarily termed "sandiness" in jelly. Therefore, a water containing a large amount of calcium which is in the form of calcium carbonate could not be recommended for general use for canning purposes.

Some of the salts of magnesium are generally present in well water, usually in the form of magnesium sulphate, commonly known as Epsom salts, or magnesium chloride. Sometimes a small amount of magnesium carbonate may be present in the water, though this is very rare. Water containing a very large amount of magnesium chloride or sulphate has a bitter taste and this would of course be imparted to the goods in which it might be used. The soda which is in water is present as a rule in the form of sodium chloride or common salt. This would of course have no detrimental effect in canned goods, but the presence of a large amount of chloride is an indication that the water may be contaminated with sewerage, unless the well is a very deep one or is in the vicinity of salt wells or the ocean. The presence of nitrous acid in the form of nitrates is also an indication of sewerage, especially when chlorides and ammonia are present. Of course water which might be contaminated in such a way would not be good for use in canned goods, especially in any goods which might not be subjected to a high degree of temperature in sterilization. Too much stress cannot be laid upon the danger of drinking water which may be contaminated with sewerage. Water may also contain some organic matter, and it would be almost safe to say that where

nitrates are found in water there is some organic matter present, as the nitrates are the decomposition products of organic matter, so we may say that water containing any appreciable amount of nitrates is to be regarded with suspicion. Ammonia, as is well known, is also a decomposition product of organic matter. Ammonia, however, in minute quantities is present in nearly all water and may not be said to interfere with the quality of the water unless a considerable amount is present. Rain water contains a considerable amount of ammonia and this percolating through the soil dissolves some of the ammonia produced by the decomposition of vegetable matter in the soil and thus readily finds its way into surface wells. The ammonia, however, may be present in water in more than one form. The common form is free ammonia; the other is what is termed "albuminoid ammonia." Water which contains albuminoid ammonia gives every indication of surface drainage and should not be used for drinking purposes.

Hydrogen sulphide is present in a few wells and may be due to decomposition, or it may be that it is naturally present in the water coming from mineral decomposition, giving us what is ordinarily termed "sulphur water." Such water, while it is perfectly harmless to the human system, should never be used for canning purposes. It imparts an objectionable taste and odor to the goods and will blacken the tin of the can by changing it into stannus sulphide.

Silica is present in small quantities in water, but has no bearing whatever upon its practical use. Suspended matter in water is merely a physical condition and may easily be remedied—in some cases by the use of sedimentation tanks or in more obstinate cases it may be necessary to filter the water. This may be generally accomplished by the use of the ordinary sand filter. It is ofttimes as convenient to use charcoal as a filtering material in place of the sand. This will give better results.

For use in boilers it is necessary in order to secure good results that the water shall deposit only a minimum amount of scale. The scale which is deposited in boilers is the lime and iron of the water. It is of course impossible to remove these two substances by means of filtration. The suspended matter may be removed from the water by filtration. Numerous methods of chemical treatment of water have been proposed which have as their object the removal of the lime from the water, together with part of the magnesium and sodium salts. As yet no perfect method has been devised for the chemical purification of water. One of the most common methods in use in this country is the treatment of the water for boiler purposes with pearlash, which is simply crude potash. In some cases crude soda ash is used. Either of these answers the purpose and it only depends upon the relative market price as to which should be used.

It may be of interest to the general reader to know how to make a few simple chemical tests upon water by which he could ascertain for himself what ingredients the water contains, and their approximate proportion. The color of water is first observed by examining it in a colorless glass tube. By noting the odor it is ofttimes possible to detect pollution of water. That may be best done by placing a few ounces of the water in a bottle and warming it to blood heat. It is maintained at this temperature for some time, when the cork is withdrawn and the odor immediately observed. With a little practice one can readily detect the presence of organic impurities. The most reliable method for the detection of organic matter in water is as follows:

Fill a tall glass jar with the water to be tested. A few drops of sulphuric acid is added and then potassium permanganate solution, until the water assumes a deep purplish tint. It is now allowed to stand in a warm place for one hour. If organic impurities are present the solution will be decolorized or perhaps turned to a dirty brown.

Chlorine in water is detected by the addition of a few drops of a solution of silver nitrate to the water. If any chlorine is present a white precipitate will be immediately formed, the amount depending upon the amount of chlorine in the water.

If iron is present in water in any form the water will be turned blue upon the addition of a solution of potassium ferricyanide, or another test may be applied which shows the presence of iron if it is present in appreciable quantities. This is made by the addition of ammonia to a considerable quantity of the water. Iron will be precipitated in the form of ferric hydrate, which has a reddish brown color. Ammonium carbonate solution, when added to water, precipitates the lime in the form of calcium carbonate as a white powder. Magnesia may then be precipitated by the addition of disodium phosphate solution.

These are all simple tests which anyone without previous knowledge of chemistry can readily make. It is by no means such an easy matter to make a complete and accurate analysis of a sample of water. This can only be done by an experienced chemist, and requires a great deal of careful and painstaking work to secure accurate results.

SUMMARY.

In summarizing the requirements for water to be used in the canning and preserving of fruit and vegetables, we may briefly state the known facts: Iron in all forms should be absent from the water. The amount of lime present must be small, not to exceed 200 mg. per liter. The amount of magnesia must also be small, especially if it is present in the form of magnesium chloride, and should not exceed 150 mg. per liter. The amount of chlorine, except in special cases, should not exceed 4 mg. per liter. Nitrates and organic matter should be absent. Hydrogen sulphide and all metallic substances must be absent. Free ammonia may be present in small quantities. There should be no albuminoid ammonia present. The total amount of solids should not exceed one part in one thousand.

The requirements in water for canning purposes are many, but we believe that every canner will find that it is profitable for him to use only water of the best quality in his goods. If the water at hand is not up to the required standard, he should make strenuous efforts to bring it up to the required standards, and if this is impossible, he should secure his supply from some other source.

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Analytical Work on Block Tin.

By L. E. Walter, M. S., Chemist National Canners' Laboratory.

Much has been written during the past year by persons connected with the inspection and the analysis of the food products of America upon the purity of the block tin used in the manufacture of tin plate intended for canned goods containers. The impression has become prevalent amongst canners and food commissioners and the general public that this block tin was of an inferior quality. Statements have been made in many cases that the tin was impure, containing various amounts of such poisonous metals as arsenic, antimony and copper, and in some cases containing lead and sulphur, which might have a detrimental effect upon the appearance of the goods in the cans made of such plate.

We have received in the laboratory several samples of block tin such as is being used in the manufacture of tin cans, and very careful qualitative analyses were made of these samples. The results of all the analyses showed that the block tin now being used in tin plate manufacture in the United States is practically chemically pure. We examined all of the plate for the presence of the following elements, and in no case were any found to be present, namely: Lead, silver, mercury, arsenic, antimony, bismuth, copper, cadnium, iron, chromium, aluminum, nickel, cobalt, manganese, zinc, barium, strontium, calcium, magnesium, sodium, potassium and sulphur. In some cases an exceedingly small trace of carbon was found to be present in the tin, but this of course is not particularly detrimental and can be readily accounted for by the regular method of reduction of tin ore.

It might be interesting to note how the tin is prepared from its ore and to show the very small chance of any impurities being present. The principal ore of tin, commonly known as Tin Stone, Cassiterite, or technically called stannic oxide (SNO_2), is practically pure. The first step in its preparation for commerce is the removal of most of the impurities by simply washing the crude ore after it has been crushed. The next step is the roasting of the ore in revolving furnaces, through which a continuous blast of air is passing. The volatile substances, which include arsenic and sulphur, are driven off and all other impurities are oxidized. The ore is now washed and comes out nearly pure. The reduction process is the next step, which is accomplished by mixing the ore with anthracite and heating in a blast furnace, after which the metal is drawn off and still further purified by liquation, that is, it is melted in a reverbatory furnace, and the pure tin being more fusible than any of its alloys it melts first and is drawn off. It is then stirred with poles of green wood, which separate all of the dross, which is removed. In this way the tin is brought to a state of great purity. In fact, it is almost strictly chemically pure.

After examining carefully the methods of reduction of tin ore and making analyses of different samples of block tin we can see no reason why the claim should be set up that the tin plate used in the manufacture of cans is not of the highest grade of purity. We have never yet seen

the report of an analysis of block tin in which there were any impurities present. In consideration of this matter from all sides we have come to the conclusion that the so-called impurity of block tin is simply the product of imagination and is not warranted either by study of the methods of manufacture or by chemical analysis.

Detection of Glucose.

By L. E. Walter, M. S., Chemist National Canners' Laboratory.

During the past month several inquiries have been received as to the amount of glucose which might be used in a syrup or any such manufactured articles as jellies and jams without the possibility of detection by the methods of chemical analysis. These inquiries have been received in good faith, as in most cases the manufacturers wish to know what, if any, quantity of glucose their competitors might be using in manufactured articles. In reply to all of these inquiries we have stated that there was no possible chance of the use of glucose without its being detected if it should come into the hands of food chemists. As we all know, glucose has the same value as a food as pure cane sugar, but of course it must be considered as a substitution for it in goods where cane sugar is generally used. The detection of glucose in a sample depends upon the fact that glucose gives a strong right-hand polariscopic reading. Cane sugar gives a right-hand polariscopic reading, but not so strong as that of glucose, and moreover, glucose is not affected by the inversion process, as is cane sugar.

The method of analysis for the detection of the presence of glucose and for the determination of the percentage of glucose and cane sugar varies with the form of polariscope which may be used. The general method, however, is as follows: A normal weight of the material under examination is weighed up; a clarifying reagent like lead acetate and sodium sulphite is added, and the solution brought up to 100 c. c. It is now polarized in a 200 m. m. tube. Genuine cane syrup rarely reads over 61 degrees; pure glucose syrup will read from 100 to 145 degrees. The additions of cane syrup and the glucose and the presence of the various sugars, such as natural grape, invert sugar and milk sugar, will of course vary this reading.

The next procedure is the inversion of the sample by the following method: 50 c. c. of the clarified solution are measured up and 5 c. c. of concentrated hydrochloric acid are added. This is heated so that at the end of fifteen minutes the temperature will reach 68 to 70 degrees C. It is immediately cooled and neutralized with potassium carbonate and again polarized. Genuine cane sugar will give a reading to the left, while glucose imitation is nearly as far to the right as before. Several formulas are in use for the various forms of polariscope for the determination of the amount of glucose and cane sugar present in any sample. To illustrate the procedure in such a case we might give to the reader the results of an analysis of jam which we made a short time ago. In this particular instance we determined the polariscopic readings of the sample by the double dilution method, that is, diluting the normal weights one-half, which has been found to give a more accurate reading. The results were as follows: Direct reading, 0 at 21 degrees C., and inversion reading, 14.4 degrees at 21 degrees C. Substitute this reading in Clerget's formula and we have $\frac{14.4\ (100)}{144-2\frac{1}{2}}$, which gives sucrose, that is, sugar, 10.80 per cent. However, there was much invert sugar in the jam. The readings would indicate that between 40 and 50 per cent of cane sugar had been used in making the jam. Substituting the direct readings and the percentage of sucrose in Leach's formula for determining glucose gives negative results. We saw from the direct and invert readings that glucose had not been used in preparing this article.

It is of course difficult to make the average reader, who has no knowledge of the manipulations of the polariscope, understand exactly how it is possible to determine the admixture of a small amount of glucose with cane sugar, yet we have found it to be possible in all cases to determine wherever glucose has been used in a food product either with or without the addition of cane sugar, so to others who might wish to know something upon this question we would say that the use of glucose in goods of any character can be readily detected by the analytical chemist, so we wish to advise all manufacturers of compound jellies, jams, syrups, etc., that it would be wise for them to place the fact that they are using glucose upon their label; otherwise they may get into serious difficulties with the food commissioners. These compounded articles in which glucose is used are in most cases just as healthful, and contain just as much nutriment as those which are made up with pure sugar, and we believe that with proper advertising the general public may be brought to use these articles on an equal scale with those manufactured with the use of cane sugar.

Determination of Spoilage—Whether Caused by Incomplete Sterilization or Leaks.

One of the subscribers to the laboratory has written us for our complete method of determining whether spoilage in canned goods is due to incomplete sterilization or to leaks. He states that there has been some controversy on this matter, the processors claiming that no such distinction could be made. The solution of this problem will clear up the responsibility for spoilage, whether on account of incomplete sterilization or on account of defective cans. This is valuable to the packer as well as to the can maker. If there is anything wrong with the sterilizing process, it is very essential that the packer should be acquainted with the fact as soon as possible in order that he may change his process and avoid further loss. It is also valuable to the manufacturer of tin cans, as by having a certain means of deciding just what is responsible for the spoiled cans, all disputes may be settled amicably and satisfactorily.

In order to clearly understand a subject of this kind it is necessary for us to gain some little information on the biological and morphological characteristics of the various kinds of bacteria which are found in spoiled canned goods, due both to incomplete sterilization and also to leaks. In the first place, we know that any bacteria which will live through any ordinary process which is given canned goods for sterilization must belong to the hardy species, that is, to those which bear spores and are very resistant to heat, and if the sterilizing process were incomplete it would be reasonable for the investigator to expect to find some of these hardy species growing in the juice. In the ordinary atmosphere there are many kinds of bacteria. There may be the spores of some of these hardy varieties, but by far the most common are the molds, lactic acid and acetic acid bacteria. There are also various races of wild yeasts. We say that these classes predominate, but there may be in canning factories spores of hardy bacteria wafted through the air which might gain entrance to leaky cans along with the other less hardy varieties, but it would hardly be probable that we should find a pure culture of any hardy species in a leaky can when the air is so heavily laden with the less resistant forms.

Let us examine the conditions and I believe that we will be able to demonstrate very easily a very distinct method of detecting spoilage due to leaks from that due to incomplete sterilization. Let us, for instance, take ten cans known to be absolutely airtight and ten other cans known to have small leaks. We fill all of these cans in the usual manner with peas. These peas are covered with bacteria. Some of them belong to the hardy species, others to the less resistant group. They are all put into a retort and sterilized 15 minutes at 240 degrees. Some cans may be possibly thoroughly sterilized even at this temperature. The others will spoil. Those which have no leak will probably contain pure cultures of hardy, spore-bearing bacteria, possibly only one species and probably not more than two or three. The cans which leak will have some of the hardy species and all of the less resistant forms will have perished. The leaky cans may on cooling down have a vacuum like the sound cans, but will draw in through the leaks a certain amount of atmosphere to relieve the suction which will be caused by the contracting of the cans on cooling. This air which is drawn in through the leak will contain large numbers of lactic acid bacteria, molds, yeasts and other species found in the air, among which the lactic acid group predominates. The undestroyed spores in the cans will begin to vegetate and there will be evidence of some few hardy forms for a time. This does not continue very long, however, because the lactic acid bacteria and other species will rapidly overrun the hardy forms and the lactic acid will be generated so rapidly as to make the juice unfit for the growth and multiplication of the hardy species, so that after a month or two we would be unable to get even a culture of the hardy species. The less resistant forms would likely overrun all culture plates long before a growth could be obtained from the spore-bearing germs. The thermal death point of such bacteria as lactic acid and some molds and yeasts is about 160 to 180 degrees, although in the case of molds it will sometimes run considerably higher. If, therefore, upon making plate cultures of the juice from a suspected can we find that the dishes are overrun with these bacteria which are easily destroyed by heat we must conclude either one of two things—first, the suspected can was not sterilized at all, and second, that

it is a leak. If the contents of the can were not sterilized at all they would have a raw taste, would be tough and fibrous, and although from the action of the bacteria might be softened a little, yet a distinction could clearly be made.

This point being thus settled, it would be an easy matter to determine whether the can were a leak, or had never been sterilized at all, or if the sterilizing process had been incomplete. I believe those which are left under natural conditions and not tampered with could be easily put through both tests and a correct determination made of what caused the spoilage.

Experiments to Determine Cause of Discoloration of Canned Hominy.

All canners of hominy have been troubled more or less with discoloration in hominy. This has been attributed to the presence of a little free lye in the cans, but this would not account for certain cases where there were only a few black grains and these in some particular places in the can. In order to determine exactly what was the cause we carried on a series of experiments in connection with one of the largest canners of hominy, from which we got the best of results. The company put up several cans of hominy in inside coated cans according to the following directions:

Fill two cans with hominy in the usual way and distribute throughout the contents about 25 small pieces of freshly cut tin so that the raw edges will be exposed to the action of the corn. Seal these cans carefully. Put the acid in the crease with a pencil brush, so that none will get on the inside of the can. Fill two cans with hominy as usual and put one tablespoonful of soldering solution in each can. Fill two cans as usual, put in several small pieces of tin and several pieces of solder. Fill two cans, putting in small pieces of tin, small pieces of solder and a tablespoonful of soldering flux. Fill two cans as usual and put in a small amount of pure lye. Fill two cans as usual, put in some pieces of tin and some lye. Fill two cans, put into them some small pieces of tin, some small pieces of solder and some lye. Fill two cans; put into them some small pieces of tin, some solder, some soldering solution and some lye.

We examined the cans of hominy, which were treated as we suggested, and the following notes were taken as the cans were opened:

Can of hominy containing five small pieces of freshly cut tin; no acid on the inside; no discoloration.

Can No. 8, containing one spoonful of soldering flux; no discoloration; hominy very white, presenting a bleached appearance; juice showing starchy appearance; can bright all over the inside.

Can containing one tablespoonful of pure lye; hominy very severely attacked; color reduced to amber; total disintegration of the grains; juice reduced to a jelly; inside of can bright and tin severely attacked all over inside.

Can containing six small pieces of freshly cut tin, six small pieces of solder, one tablespoonful of soldering solution and one tablespoonful of lye; result same as in the previous case, except that the color is a little lighter.

Can No. 4, containing six small pieces of freshly cut tin and tablespoonful of lye; appearance same as previous can.

Can No. 6, six small pieces of freshly cut tin, six pieces of solder; hominy discolored where lead and tin lay next to the grains together.

Can containing twenty-five small pieces of freshly cut tin, no acid in can; hominy white; no discoloration.

Can containing one tablespoonful of soldering flux; hominy white, with a bleached appearance; juice of a starchy consistency.

Can containing six small pieces of freshly cut tin, six small pieces of solder; contains discolored grains of hominy wherever the solder and tin are together.

Can containing six small pieces of tin, six small pieces of solder, one tablespoonful of soldering flux; general appearance of hominy, white, bleached; juice of a starchy consistency; discolored grains in the immediate neighborhood of the solder and the tin.

Can containing six small pieces of freshly cut tin, six small pieces of solder, tablespoonful of soldering flux; general appearance of hominy, white, bleached; juice of a starchy consistency; one grain only showing any discoloration.

Two cans having inside coating; hominy in good condition; quality all right, so far as appearance is concerned.

We concluded then from the result of these experiments that the discoloration of hominy is due to tin and solder together and we are able to state that the discoloration is due to a deposit of metallic lead on the grains of hominy. The discoloration following the use of lye is not of the same character—it is amber-like in color. The theory that soldering flux or zinc chloride was the cause of discoloration is spoiled. It has a bleaching effect, a tendency to make the hominy very white.

The result of this investigation may be considered as most satisfactory, showing conclusively the one cause of discoloration in hominy. This has long been a serious difficulty and the true cause had never before been determined.

BACILLUS CYANOGENUS, MAG. 1200.

A bacillus found in a sample of "blue milk." It is actively motile and has a bunch of flagella at one end which is very characteristic and differs in this respect from nearly all other organisms.

PICKLE NOTES

The cucumber crop in eastern Monroe county, Wis., is reported large this season.

* * *

Advices state that the pickle crop in the vicinity of Rochester, Ind., is going to be so large that it is necessary to build an addition to the local plant of the Stafford & Goldsmith Co. The addition, we hear, will be 20x60 feet in size and will contain twenty large tanks.

* * *

The 220 acres of cucumbers in the vicinity of Fulton, Ill., are reported yielding heavily. The Amazon Vinegar & Pickling Co. have a plant at Fulton.

* * *

The Pfister Pickle Co., Buffalo, N. Y., has been incorporated with a capital stock of $60,000. The directors are J. F. Pfister, S. Lipowicz and V. J. Nick, all of Buffalo.

* * *

We hear that a pipe line has been constructed from the water works at Muscatine, Ia., to the pickling factory at Kecklerville, where cucumbers are now being salted.

* * *

The following is from the Lone Tree, Ia., "Reporter": "It is an interesting sight to visit the salting stations of the Heinz pickle works at Nichols and Conesville. The pickle crop is right in its prime now and hundreds of bushels of pickles are being marketed at the above places every day. The price paid is 60c per bushel for the small ones and 20c to 25c for the large ones. The acreage next year in these two localities promises to be greatly increased."

* * *

The H. J. Heinz Co., Pittsburg, Pa., has under cultivation a few miles north of Crete, Ill., for experimental purposes, forty acres of horseradish and twenty-five of pickles. The latter will be allowed to ripen and will be used for seed exclusively.

YOU MUST NOT MERELY USE CANNER WANT ADS., BUT YOU MUST READ THEM

OUR NEW CATALOGUE OF

Canners' Thermometers

Is now ready to mail.

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Also ask for Catalogue of Automatic Temperature and Pressure Control in Canning Operations.

Hohmann & Maurer Mfg. Co.

ROCHESTER, N. Y.

Inconsistency in State Food Laws.

By Dr. H. W. Wiley, Chief, Bureau of Chemistry, United States Department of Agriculture, in American Industries.

By reason of the character of our national growth the Congress of the United States has no control over the police powers of the various states. The police powers of the Congress are confined by wise constitutional provisions to products entering our country from abroad, or to such as become subjects of interstate commerce. One important function of the police powers, both of the national government and of the states, relates to the wholesomeness and purity of foods. In the term "food" are now included beverages of all kinds, condiments and substances added to foods for any purpose whatever. It is a wise exercise of the police power to forbid traffic in filthy or decomposed foods, or in those which contain any added substance injurious to health, which are falsely labeled or branded, or which are adulterated in any way, whether in a manner prejudicial to health or not.

Guided by this general principle, the states and territories of the Union have, almost without exception, enacted legislation of a restrictive character on commerce in foods and drinks. This legislation, as may well have been expected, is of a most varied kind. Its inception has usually been due to the efforts of some particular industry to protect itself against competition with an adulterated and correspondingly cheaper article. The real reason for the enactment of food laws has, therefore, been from the first a commercial instinct. The protection of health has been in most cases an incident to the prevention of misbranding and imitation.

Chief among the special interests which have been active in securing pure food legislation must be reckoned the dairy industry. This interest has undoubtedly more laws on the statute books of the states than all other interests put together. Strange it is, too, that it has been the manufacturing and not the consuming interests that have secured most of the legislation now extant. There are few laws regulating commerce in foods that have been enacted at the behest of the consumers alone. This is easily explained by the lack of organization among consumers. This fault has been remedied in the past few years by the organization of the Consumer's League, but this powerful organization has not yet seriously taken up the problem of state and national food legislation.

One chief characteristic of the state laws is, therefore, their particularity. There are even separate laws for the same industry. For instance, there is a law prohibiting the adulteration of milk; another, or a different part of the same law, forbidding the adulteration of cheese, butter, etc. These laws are sometimes in the highest degree proscriptive, denying to one product a favor legalized for another. It seems, indeed, like going back to medieval times when one artificial color is legalized for butter and outlawed for milk or cream, and yet such is the case in more than one state law. Again, preservatives are permitted in some food products, and the same preservatives forbidden in others, as, for instance, borax, which until lately was legalized in Pennsylvania in meat and butter. The legislature of Michigan last winter passed a law legalizing the use of borax in butter and prohibiting it in other food products. There was some doubt as to whether the governor would approve this bill or not, but at last it was voted by the legislature.

This tendency to legislate separately for any kind of food is one of the chief vices in state and national legislation. There must be confusion when a different legal code and a different code of ethics are found for butter, table syrup, cheese, oleomargarine, honey, sausages and flour.

The statute books of the states are, therefore, burdened with an immense amount of unnecessary and conflicting legislation, imposing useless burdens on the manufacturer and depriving the consumer of needed protection. What is most needed at the present time is some uniform principle on which the state laws may rest.

Federal legislation has not been less disposed to fall into the same unfortunate condition. We have, for instance, a federal law forbidding the coloring of oleomargarine and legalizing the coloring of butter, a law which forbids the addition of sugar or color to whisky and permits and countenances their addition to compounded and imitated whiskies. Brandy is allowed by law to be added, free of tax, to sweet wines, but not to those that are dry. These are only a few of the inconsistencies, yea, even oppressions, of the federal laws relating to foods. One other instance may serve to show the tendency to partial or favored legislation.

The only general law in the federal statute books restricting interstate commerce in food products contains an almost inexplicable discrimination. This law forbids interstate commerce in food and dairy products which are misbranded as to the state or territory where made. This is a most wholesome prohibition. But why should it stop with a prohibition of misnamed place of manufacture in this country? Why did it not include other countries? Why should it not include a prohibition of misbranding as to contents and composition? The latter is far more important than a mere misbranding as to state or territory alone.

We should not wonder at the mixed character of the state laws when we consider the conditions under which they were enacted. The state legislatures have no model to guide them in the construction of the laws. They saw a particular evil and aimed a blow directly at it, unmindful of the fact that the evil owed its existence to a fundamental vice which permeates the whole trade in food products. They proceeded to cut off the offending branch, but did not lay the ax to the diseased root.

Fortunately, better times are coming. The general principles on which the state laws are finally to be based are crystallizing out of the troubled mother liquor of promiscuous and class legislation. Several definitions of food adulteration are coming to be accepted. The Congress of the United States has authorized the establishment of standards of purity for food products and the states are rapidly incorporating these standards into their own laws. There has been considered in Congress for many years a general food law on which many of the later state laws are based, and a general clearing of the cloud-covered pure food sky is taking place. The ideal food law for the states is one based on a national law regulating interstate commerce in foods, a law in which no food product is mentioned by name, in which definitions of food adulteration in general terms are clearly stated, and one which requires uniform practices in the preparation of all food products. Such a law is based on the eternal principles of ethics, transgresses no law of justice and imposes no unequal penalties.

When in the future the day shall come which marks

the enactment of such legislation for the nation and for the state, the evils of food adulteration will be checked, the manufacturer of foods will be subjected to no needless restrictions, and the consumer will be amply protected.

Manufacturers to Discuss Food Legislation.

Reports from New York say that it is understood a meeting of the new National Food Manufacturers' association will be held in that city in October, for the discussion of matters relating to national food legislation.

It is also said that this organization will meet at that time a committee from the National Association of Packers of Pure Canned Foods to discuss the need for national legislation covering the matter of pure food laws. The date for this meeting, it is stated, has not been decided upon, though it is generally believed that the time fixed will be around Oct. 15.

Grocers Visit Dickinson & Co.'s Cannery.

About one hundred of the retail grocers of Peoria, Pekin, and Washington, Ill., took advantage of the free excursion run by Oakford & Fahnestock, grocery jobbers at Peoria, to Eureka, Ill., on August 30th, to inspect Dickinson & Co.'s canning factory at that place. The excursion was in the personal charge of Messrs. A. S. Oakford and H. R. Fahnestock, assisted by six of their salesmen, and they were received and entertained in Eureka by the firm members of Dickinson & Co., assisted by Eureka retail grocers.

About an hour and a half was spent in the inspection of the factory methods, after which all were asked into the large wareroom adjoining the office, where a lunch of pumpkin pie, made from Dickinson & Co.'s Woodford Brand Pumpkin, and coffee, made from Oakford & Fahnestock's America Cup brand, was served.

Following the lunch, the retailers were addressed by Mr. P. Sipfle of Pekin and Mr. A. S. Oakford, thanking Dickinson & Co. for their hospitality, and were answered by Mr. E. B. Dickinson, thanking the grocers for the honor of their visit and urging them to repeat it as often as possible. Cigars were distributed and the party just had time to see the principal streets of the town and catch the afternoon train into Peoria.

The system and cleanliness visible everywhere in Dickinson & Co.'s factory were favorably remarked by the visitors. In both the cutting and silking departments the employes of the plant wear white suits, which are changed and laundered daily. There were many things of interest to the grocers, but the cleanliness of the plant throughout undoubtedly impressed them most.

Studies on Apples.

The Bureau of Chemistry of the Department of Agriculture, Washington, D. C., has issued a report on some studies made in the Division of Foods in the Micro-Chemical Laboratory of that Bureau on the development of apples, especially under different conditions of storage, and to recommend the publication of the same as Bulletin No. 94 of the Bureau.

This investigation has been in progress for the past two years, and some preliminary work was done prior to that time by J. S. Burd. The work was originated, planned and directed by W. D. Bigelow, chief of the Division of Foods. The analytical and bibliographical data should be, for the most part, accredited to H. C. Gore, though E. M. Chace and W. L. Dubois participated in the analytical work. The third section of the report, comprising the microscopic studies, photographs of the fruit, and the specific gravity determinations, is entirely the work of J. B Howard, chief of the microchemical laboratory.

The investigation has been made in collaboration with William A. Taylor and G. Harold Powell, of the office of pomological investigations, Bureau of Plant Industry, who have selected and procured the samples and furnished facilities for their transportation and cold storage. They have also taken an active interest in planning the work and discussing its results, and have furnished all of the pomological data.

Hunts Prehistoric Peach.

About five years ago, Secretary James Wilson, of the United States Department of Agriculture, sent one of the most skillful men in the department to China to get the prehistoric peach from which all modern varieties of the fruit have sprung. The expert, after enduring many hardships, failed, owing to the outbreak of the Boxer trouble. Last winter Mr. Wilson sent out another expert, who is now far up in the headwaters of the Yangste Kiang looking for the fabled peach of the days of Adam and Eve. The secretary expects to hear from his man in a few weeks. And it is hoped that he has found the mother of all peaches and will bring a specimen to America.—Modern Grocer.

William Dugdale,

301 Majestic Building, INDIANAPOLIS, IND.

Representing the

H. D. Williams Cooperage Co.

Poplar Bluff, Mo.

Six-Hoop Oak Pulp Barrels

First Class Stock at Very Close Figures
Write for Special Delivered Prices

STEK-O

A PERFECT PASTE IN POWDER FORM

STEK-O is Adhesive and Clean.
STEK-O does not Stain or Wrinkle Labels.
Samples free. Orders on Approval.

Clark Paper & Mfg. Co., Rochester, N. Y.
35 ACENCIES

Fruit Crop of France.

Consul Thackara, writing from Havre, sends a timely report on the fruit outlook in France. He says there will be a good demand for apples and apricots, and that careful packing and honorable dealing are sure to secure for American fruit dealers a large part of French trade. He writes:

"It is somewhat early to make an accurate prediction as to the bulk and quality of the coming French fruit crop, but it may be of interest to the growers and exporters of American fruit to learn what are the prospects at this time for securing an outlet for the sale of their products in the Havre market. Unless there should be unusually unfavorable climatic conditions during the next six weeks, the chances are that the French prune crop will be above the average, as all reports from the growing districts are satisfactory. The large sizes, however, are not abundant, and there may be some business done with the United States in 30 400 and 40 500, provided the American prices become lower. They are too high at present to compete with those of the native-grown fruit.

PRICES OF FRENCH AND AMERICAN PRUNES.

"In the following table are shown the prices at which French prunes of the 1905 crop were offered to grocers July 31 last, with the parity of American prices—that is, American grades that under existing conditions would have to be offered so as to compete with the French grades set over against them—and sizes obtained by deducting from the French prices the customs and other charges, and the prices of American prunes f. o. b. Havre, which were quoted on July 31. The prices are for 100 kilograms (220.46 pounds).

French Prunes.		American Equivalents.		American Prunes.	
Sizes.	Value.	Sizes.	Value.	Sizes.	Value.
50/55	$16.98	40/50	$13.51	30/40	$16.31
60/65	12.74	50/60	9.65	40/50	14.42
70/75	10.81	60/70	7.72	50/60	13.32
80/85	8.88	70/80	5.79	60/70	12.35
90/95	7.72	80/90	4.825	70/80	11.39
100/105	6.56	90/100	3.86	80/90	10.42

"The difference in the classification of the sizes of the French and American prunes is owing to the fact that the French prunes are sized by the number of prunes in a French pound, or half a kilogram, which equals 1.1 English pounds, and the American prunes according to the number of prunes in an English pound.

"From the above table it will be seen that the local importers, in order to compete with the present prices of French prunes, would have to purchase the American fruit f. o. b. Havre, 40 50's, for example, at $13.51 per 100 kilograms, while the price quoted by the American exporters July 31 last was $14.42. In the smaller sizes the difference in prices is still more marked.

"Comparatively large stocks of prunes have been left over from last season. Accurate statistics are not available, as most of the fruit is stored in private warehouses, but reliable merchants estimate the amount of American prunes in Havre at the end of July at from 15,000 to 20,000 boxes, mostly of the crop of 1903. It is supposed that the producers, merchants and brokers in the interior of France are carrying over large stocks of native prunes of the 1904 crop.

APRICOT CROP PROMISING.

"The prospects for a good native crop of apricots are favorable, but owing to the low prices of the American fruit now ruling in the United States purchases have already been made for importation into France, and there will probably be a fair demand for American apricots during the coming season. There are no stocks of apricots left over in Havre from last year. The prices for American apricots f. o. b., Havre, on July 31 last, per 110.23 pounds in 12½-kilogram (27.55 pounds) boxes f. o. b., Havre, were: Choice, $16.21; extra choice, $17.37, and fancy, $19.30, for August and September deliveries.

APPLES.

"It is thought that there will be a good trade in American evaporated apples, whole and sliced, and in American fresh apples for table use.

"The prices ruling July 31 last, per 100 kilograms (220 pounds) f. o. b., Havre, were: American evaporated apples, whole and sliced, in 25-kilogram (55-pound) boxes, for October and November shipment, $16.02; good, sound American chopped apples, October and November shipments, in barrels, $5.79. There are no stocks of American evaporated apples left over in Havre from last year.

IMPORTS OF DRIED FRUITS.

"In the following table are given the imports of fresh and dried apples and other dried fruits into France for consumption during the first six months of the last three years. The bulk of the dried fruit was of American origin. The figures represent pounds:

Fruits—	1903. Pounds.	1904. Pounds.	1905. Pounds.
Fresh apples and pears	10,895,000	7,629,000	4,211,000
Dried, for table use (evaporated)	1,005,000	3,156,000	315,000
Chopped apples, for cider			

Redlich Mfg. Co.

Telephone 479 North

10 Oak Street, ... CHICAGO, ILL.

CIDER AND VINEGAR MAKERS' SUPPLIES

VINEGAR SHAVINGS, WOODEN FAUCETS, BUNGS AND PLUGS, BUNG STARTERS, BUNG BORERS, POROUS WOOD VENT PLUGS, CIDER CLARIFYING SHAVINGS, CATSUP AND MUSTARD FILLING FAUCETS.

LABELS FOR ALL KINDS OF CONDIMENTS, CAPS AND TIN FOIL, CAPPING MACHINES, CORKING MACHINES, ACID PROOF PAINTS, CORKS ALL SIZES.

Did you ever stop to figure what a saving it is to have an assortment of Bungs?

Write for Any Article Needed in This Line

Canned Goods are Too Cheap

Warehousing frost proof; no cartage.

Money Plenty. Storage rate, insurance and interest charges for loans are the lowest in the country.

Canned Goods Exported and Imported, bought and sold on commission.

Correspondence Solicited

Franklyn Spiese, Broker, Philadelphia, Pa.

1214 Arch Street

Rush Orders

The VIRGINIA CAN COMPANY is prepared to fill Rush Orders for Two and Three Pound cans on short notice.

These cans are of superior quality, equal to the best.

Wire or write for prices.

Virginia Can Co.

Buchanan, Va.

making	11,740,000	16,496,000	1,908,000
Dried prunes	17,090,000	20,165,000	91,900
Other dried fruits, mostly apricots	4,573,000	5,477,000	4,181,000

ADVICE TO AMERICAN SHIPPERS.

"It will be readily seen from the above table that, owing to the unusually abundant fruit crops in France last year, the importations of all American dried fruits showed a great falling off, especially those of dried prunes. I would again call the attention of American shippers to the care which should be taken in the preparation and packing of dried fruit intended for the French market.

"The local importers having reasonably assured themselves that, owing to the condition of the coming native crop, there will be a demand for American chopped apples, generally commence making their purchases in June or July for shipment from October to March. Under ordinary circumstances the American fruit does not enter into consumption before March, continuing to August of the next year; or, in other words, until after the stocks of fresh native cider apples have been exhausted. As there is no cold storage at Havre, the imported apples, during warm weather, if they are overripe or are too moist, will ferment and become deteriorated.

"Properly prepared chopped apples—that is, those which are well dried and lightly packed in the barrels—can be stored for a considerable period without loss, as may be seen from the condition of some of the American apples of the 1903 crop still on hand at Havre. It is therefore to the interest of our shippers to send first-class goods only, for the more confidence the importers have in the keeping qualities of the American fruit the larger will be their orders. Mixing peelings, skins, and small chips, or apple waste with good apples should be avoided, as inferior goods invariably lead to claims and perhaps litigation.

Light-colored apricots, technically called "bright goods," are those most wanted in the French market.

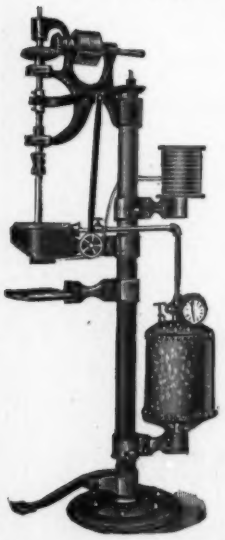
"Care should be taken that the boxes in which prunes and apricots are packed are of sufficient strength to stand the handling they receive while being transported to France."

PRUNE PRODUCTION IN THE UNITED STATES.

In the United States 100,000,000 pounds of prunes are eaten yearly. Prior to 1880 the supply came almost wholly from France and the Danubian provinces and sold under the designation of "French" or "Turkish" prunes. In the year referred to prunes of American growth appeared on the market and with each succeeding year the supply has increased until the importation of foreign fruit has been reduced to extremely small proportions. Much of the larger portion of the prune supply is from the southern part of California, where climatic peculiarities are extremely favorable for its production. In Santa Clara county alone there are 3,700,000 trees growing on 37,000 acres—100 to the acre. The quantity of prunes somewhat exceeds 110,000,000 pounds—more than enough for the requirements of the whole country, but the excess, with that raised in other localities, is needed to supply the export demand from Great Britain, Germany and France. The first plum trees planted forty years ago in California were shoots from the "Petite" and "Epineuse" varieties from France. The original varieties have been greatly improved upon.

After the planting, which is usually done in the rainy season, the shoots are cut down to a uniform height

High Pressure Single Steel Capping Machine



THIS Machine is designed for large as well as small packers. Will do patching as well as straight capping.

Can be operated by GIRL of ordinary intelligence, thus reducing the cost of patching or capping.

Is adjustable to any sized can.

Can be used to seal any package that has a round opening to be soldered.

Capping steels are raised and lowered by foot pressure, thus leaving the hands of the operator free to place cans in and out of position.

All parts are adjustable and interchangeable.

Will run with the least possible care.

Fool proof.

A complete machine in itself.

Portable, and can be moved to any part of factory or storeroom and set up in a very few minutes.

Gasoline Machine has five-gallon tank tested to 150 lbs. water pressure, fitted with pressure gauge and large floor pump.

Fitted with extra heavy pipe and fittings. Burners adjustable to any required heat. Stand for cans can be fitted with a track or conveyor to supply and take away cans. Can be fitted with our Automatic Solder Feed, thus insuring the right amount of solder to be used, at a cost of $10.00 extra. **Price, each machine, $75.00.**

MANUFACTURED BY

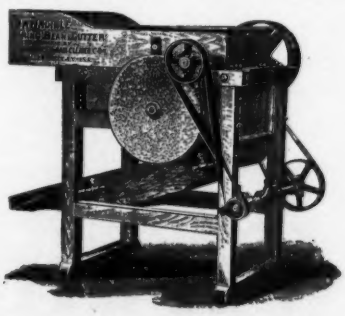
The National Cement & Rubber Mfg. Company

Canning Machinery Dept. TOLEDO, OHIO, U. S. A.

The INVINCIBLE String Bean Cutter

FOR CUTTING

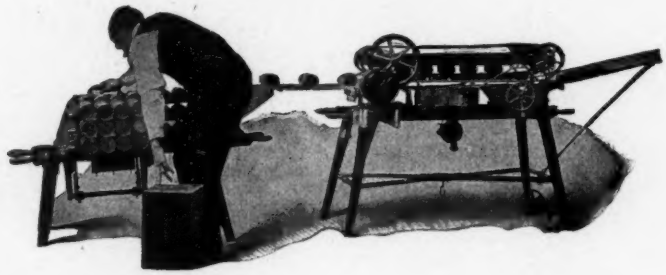
String Beans, Pie Plant and other like material



Designed on thoroughly practical lines. Has been operated in modern plants and proven the best made. The machine cuts to size, removes small fragments and prepares a perfect product. Guaranteed in every respect. .. ***Write for prices.***

Invincible Grain Cleaner Co.

"Invincible" Works, :-: Silver Creek, N. Y.



Knapp Labeler and Boxer

¶ We have told you from time to time about the Knapp Labeler and Boxer

¶ Now it is the season for you to put in one of these labor saving outfits and see for yourself. Pays mighty well to be master of the situation. No doubt about it where the Knapp machines are used. Hundreds of canners are doing their labeling and boxing with Knapp machines and could not be induced to do any other way. There is a reason. We are prepared to lease machines with privilege of purchase. We guarantee satisfaction.

¶ We are also making exchange deals. Prices and terms reasonable. May we quote you?

The Fred H. Knapp Company

80 Wabash Ave., Chicago

of about two feet. In the second year the trees are pruned, from three to five branches being left, and are again pruned in the third and fourth years. Twice during the spring and summer the soil is cultivated. In September the fruit ripens and is gathered by spreading sheets under the trees and shaking the branches. The green fruit is taken to the warehouse, where it is graded in size and passed through a boiling hot liquid, in which process it is cleaned and the outer skin softens. It is then spread out in trays 8 feet by 3 feet in size and exposed to the heat of the sun for three to eight days, depending upon weather conditions.

Ten thousand trays of fruit spread out in one unbroken tract may be seen in Santa Clara in the drying season. When sufficiently cured, the prunes are stored in separate bins and there allowed to "sweat," this process taking from ten to twelve days, when they are ready for marketing.

Commercial Formaldehyde.

Commercial formaldehyde is obtained by passing the vapors of wood spirit, in the presence of air, over copper heated to redness. The essential parts of the apparatus employed are a metal chamber into which a feed tube enters and from which four parallel copper tubes or oxidizers discharge by a common exit tube. This chamber is fitted with inspection apertures, through which the course of the process may be watched and controlled. The wood spirit, stored in a reservoir, falls into a mixer, where it is volatilized and intimately mixed with air from a chamber which is connected with a force pump. The gases after traversing the oxidizer are led into a condensing coil, and the crude formaldehyde is discharged into the receiver beneath.

The small amount of uncondensed gas is then led through a series of two washers. The "formol" thus obtained is a mixture of water, methyl alcohol, and 30 to 40 per cent of formaldehyde. It is rectified in a still, by which the free methyl alcohol is removed and pure formol obtained, containing 40 per cent of formaldehyde, chiefly in the form of the acetal. Rectification must not be pushed too far, otherwise the formaldehyde may become polymerized into trioxmethylene. When once oxidation starts, the heat generated is sufficient to keep the oxidizers red-hot, so that the process works practically automatically.—National Provisioner.

About California Fruit.

Whether classed as small fruits, or set in a class by themselves, the ambrosial grapes of the country call for 13,000 fruit cars, each carrying fifty tons, to take the luscious bunches from the vineyards to the market places.

Raisins, first produced in 1867, became of commercial note in 1873. This branch is carried on in California only. It takes from three to four pounds of grapes for one pound of raisins and production in recent years has ranged close to 100,000,000 pounds of raisins annually. The price of grapes at the vineyards has changed greatly. In New York thirty years ago the price was 5 to 6 cents per pound. From 1896 to 1901 about 6-10 of a cent. Sales have been made at much lower prices. In California good grape land costs about $200 per acre; cultivation $40 to $75 per acre; returns range from $125 to $500 per acre. Many California vineyards contain 500 acres each. The larger ones cover from 1,000 to 2,500 acres each. That of the late Leland Stanford was over seven miles long and contained nearly 5,000 acres.

Economy in Kraut Making.

Machines which are generally acknowledged as the most economical for use in the manufacture of kraut are made by John E. Smith's Sons Co., 50 Broadway, Buffalo, N. Y. This concern is the leader on cabbage cutting and coring machines. It manufactures appliances which save from 15 to 20 per cent of the cabbage, besides improving the quality of the product.

The patent Buffalo core cutter makes a cut in the core of the cabbage, so that when the cabbage is cut the core is cut with it. (Head is left whole.) The advantages of utilizing the core are many. It is the sweetest part of the cabbage. It gives the kraut a sweetish-sour flavor that cannot be produced any other way, and for which there is such a great demand. The kraut is cut in longer, finer strings, as the head is not separated when the core is taken out. The core is white and hard, makes whiter and harder kraut, packs solid and keeps better. Kraut, with the core cut in, will bring a better price. It save from 15 to 20 per cent of the cabbage. Besides the core, it saves many leaves that drop off when core is removed.

John E. Smith's Sons Co. also manufacture vegetable, fruit and mince meat cutters and mixers. You will make a mistake if you put in any kraut or mince meat machinery before writing them.

Eastern Importing and Manufacturing Co.

INCORPORATED
$50,000.00

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Now for the Season of 1906

¶ Within the next 60 days we shall be ready to distribute our 1906 catalogue and we shall be pleased to send it to every canning factory in the country: It will be well for you to have a copy and see for yourself just wherein our line can benefit you. In addition to our superb line of Pea Cleaners and Graders, String Bean Graders and Cutters and Can Fillers, we have introduced a Pea Blancher, which for economy of handling, is the greatest money saver introduced to the trade in many years.

Monitor Whirlpool Blancher

and washer, has been thoroughly "tried out" this year, and in no case have we "fallen down." It's a Whirlpool in its action, saving peas, which means money; and saving time, which also means money. If you are interested, we shall be glad to tell you all about this Blancher ***now.*** Our catalogue, however, will show illustrations of it; tell you who has used it this year, and where it will make money for you next year. As our capacity on this machine will be limited, it will be decidedly to your interest to get your orders in early, so write to-day for details concerning this money making machine.

Huntley Manufacturing Company, Silver Creek, N. Y.

MAKE YOUR OWN CANS!

The New Seam Sanitary Can

Requires no Holes or Caps
THE ENTIRE TOP OPEN

Sealed Without
Heat, Solder, or
objectionable
FLUXES,
preventing
SCORCHING and BLACK SPOTS

Impossible in packing to lacerate delicate food products. Will stand both retort and bath processing. A perfect sanitary can is obtained, eliminating all the faults of the old unsanitary type, making an ideal package, as cheap, more attractive, wholesome and better than anything yet devised. A descriptive illustrated catalogue and sample can sent upon request. Please state kind of goods packed.

We Furnish Complete Outfits for Making These Cans

All Packers, Brokers, Jobbers and retailers should recommend goods packed only in this package.

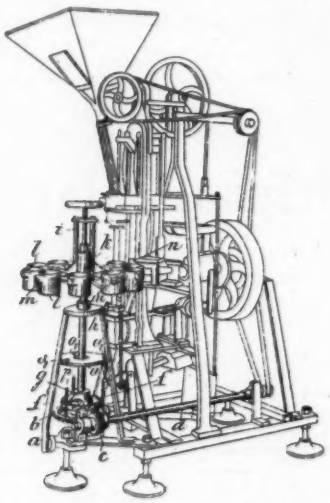
MAX AMS MACHINE CO., 372-374 GREENWICH STREET, NEW YORK CITY

WORKS: MT. VERNON, NEW YORK

New Inventions of Interest to Canners.

797,913. Apparatus for Feeding Bottles in Bottle-Corking Machines. Andrew A. Pindstofte, Copenhagen, Denmark. Filed June 21, 1904. Serial No. 213,477.

Claim.—1. An apparatus for feeding bottles in a corking-machine, comprising a rotatable shaft, a series



of bottle-holders mounted thereon, frictional driving means for operating said shaft, means for increasing and lessening the friction of said driving means, teeth on the bottle-holders and fingers adapted to engage the teeth on said bottle-holders to stop said holders in corking position.

2. In an apparatus for feeding bottles in corking-machines, the combination with a rotatable shaft, a series of bottle-holders mounted on said shaft, teeth on said bottle-holders, a finger on the corking-machine adapted to engage said teeth to stop each of said holders in corking position, a series of friction-wheels mounted on said shaft, a positively-driven disk in frictional engagement with said wheels and means for increasing or lessening the friction between said disk and said friction-wheels.

3. In an apparatus for feeding bottles in corking-machines, the combination with a rotatable shaft, a series of bottle-holders mounted on said shaft, means for stopping each of said holders in corking position, a series of friction-wheels mounted on said shaft, a positively-driven friction-disk engaging said wheels and means for increasing or lessening the friction between said disk and said wheels.

4. In an apparatus for feeding bottles in corking-machines, the combination with a rotatable shaft, a series of bottle-holders mounted in said shaft, means for stopping each of said holders in corking position, a series of friction-wheels mounted on said shaft, a worm-gear in frictional engagement with said wheels, a worm for drivng said worm and means for regulating the friction between said worm-gear and said friction-wheel.

5. A bottle-feeding apparatus for corking-machines comprising a rotatable shaft, a series of bottle-holders mounted on said shaft, means for intermittently engaging said bottle-holders to determine the corking position of a holder, a friction device for driving said shaft and means for regulating the friction of said device.

6. In an apparatus for feeding bottles in corking-machines, the combination with a rotatable shaft, a series of bottle-holders mounted on said shaft, lugs or projections on said bottle-holders, a dog on said corking-machine adapted to engage said lugs and stop each of said holders in corking position, a series of friction-wheels mounted on said shaft, a positively-driven disk in frictional engagement with said wheels, a worm-gear in frictional engagement with said wheels and means for regulating the friction between said wheels and said friction-disk and worm-gear.

797,680. Tomato-Peeler. George G. Glenn, Hamilton, Canada, assignor of one-half to William G. Lumsden, Hamilton, Canada. Filed Sept. 3, 1903. Serial No. 171,809.

Claim—1. In a machine for separating the skin, core and unripe portions of tomatoes, consisting of journaled drums carried on a driving-axle, in a suitable frame, an endless belt or separator made to rotate on the said drums, one drum constructed with a series of projections upon it to engage with the meshes of the belt or separator to drive it, a series of rollers journaled on the retaining-frame above the belt or separator at various heights above it, one or more rollers made to impinge on the belt or separator, a sheet-steel perforated plate with knife-edge attached to the frame under the belt or separator, sprocket-wheels attached to the axles of the rollers connected with an endless chain to the driving-axle, a series of forks or fingers attached to the frame in proximity to the driving-drum to receive and throw off the skins of the tomatoes after the inside is pressed out, springs attached to the axles of one or more of the rollers and

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ESTABLISHED 1885

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WANTED—POSITION FOR 1906 BY ALL ROUND canning factory man; practical experience in every department from boiler room to securing acreage; balky machinery has no terrors; am now employed but contract expires with end of the year; can show good recommends; some good Indiana or Illinois two-line factory preferred. Address J. Y. C., care THE CANNER.

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FOR SALE—ONE STEVENS CAN FILLER; ONE Grasshopper tomato scalder; two new Eureka apple pearers. Address S. J., care THE CANNER.

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FOR SALE—ALGOMA PACKING CO., ALGOMA, WIS., the best pea canning factory in Wisconsin; no better or more desirable location; reasons for selling given on application to J. Stilwell Vilas, Kaukauna, Wis.

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FOR SALE—THE FOLLOWING MACHINES IN FIRST-class condition:

2 No. 3 Moore & Bristol tomato can fillers.
1 Buffalo silent mince pie meat cutter.
1 power, J. E. Smith make, kraut cutter.
1 Ermold power corking machine.
1 Phoenix power jar cap machine.
1 double Merrell & Soule corn cooker.
2 No. 1 pressure fans, suitable for gasoline outfit.
1 36-in. Buffalo ventilating fan.
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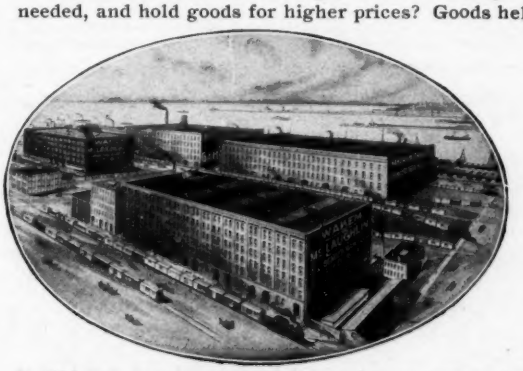

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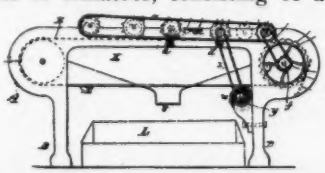
to the frame for holding down the said rollers to the endless belt or separator, all constructed for the purpose specified.

2. A machine for separating the skin, core and unripe portions of tomatoes, consisting of a wire-mesh



endless belt or separator made to be carried over two revolving drums on axles journaled in a suitable frame, a series of rollers journaled on the frame at different heights above the belt or separator, and operating mechanism to rotate them, a perforated sheet-metal plate with a knife-edge, attached to the frame under the belt or separator, to separate the skins from the tomatoes after being pressed by the rollers, a receiving-pan under the frame to receive the inside of the tomatoes, a strainer attached to the bottom of the receiving-pan means for holding some of the rollers down to the endless belt and perforated knife-edged plate, a belt-supporting frame attached to the main frame, under the belt or separator, a rotary brush attached to the main frame under the perforated knife-edged plate, and devices for rotating the brush, all constructed for the purpose specified.

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THE WESTERN PACKERS CANNED GOODS ASSOCIATION

THIS ASSOCIATION includes the canners of twelve states and is the largest and most prosperous organization of Vegetable Canners in this country. Every canner in the Central States who packs Sugar Corn, Peas, Tomatoes, String Beans and Pumpkin would find it quite an advantage to be connected with the organization. The objects of this association are to protect the manufacturers of hermetically sealed fruits and vegetables against unjust and unlawful exactions, to reform abuses, to amicably settle differences between its members, and to aid and assist in promoting among them that good fellowship and friendly intercourse so essential to a successful prosecution of the business. A valuable feature is the report made monthly by the secretary to each member showing by states the acreage planted, future sales, and stocks unsold. The meetings held annually and the special meetings are of much profit to the members. A close co-operation of canners is imperative at the present time to prevent unjust and unwise legislation. Each member makes an agreement to keep confidential the information contained in monthly reports. Membership dues are ten dollars per year.

Active canners in Colorado, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, Kansas, Nebraska, Ohio, Utah and Wisconsin are eligible for membership.

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NEW YORK STATE CANNED GOODS PACKERS' ASSOCIATION

THE OBJECTS of this Association are to foster the interests of the Canned Goods Packers of the State of New York, to protect them from unjust and unlawful exactions, to reform abuses in trade, to diffuse accurate and reliable information among the members, to produce uniformity and certainty in the customs and usages of trade; to promote a more friendly intercourse between packers; to encourage legislation looking to the protection and fostering of the packing interests of the state, and to consummate any other results which shall tend to guard, maintain and publish the high reputation attained by the canning industry in this state in the packing of wholesome foods.

Any person, firm or corporation engaged in the canning business in this state is eligible to membership in this Association.

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HANDSOME LABELS are not in keeping with unsightly boxes. The Moore and McFerren boxes are sawed and planed boxes, clean and well made up, and superior in EVERY RESPECT to the cheap veneer boxes used by some manufacturers.

We shall be pleased to call on or correspond with you in regard to your future business.

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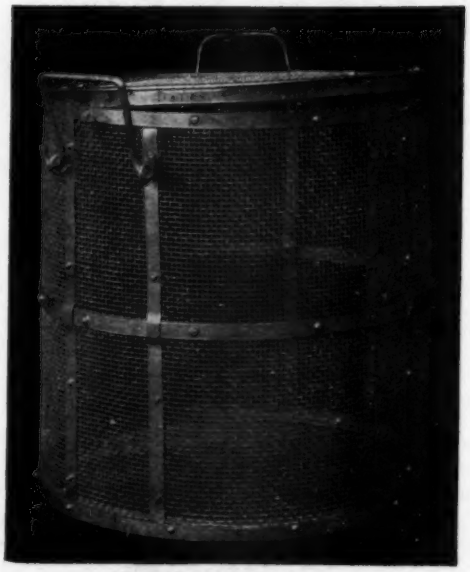

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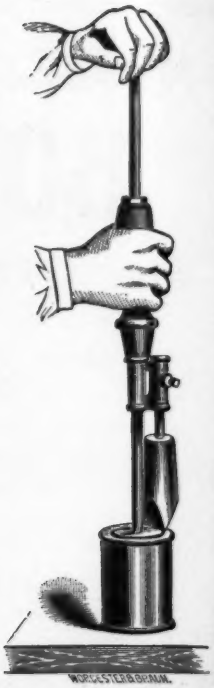

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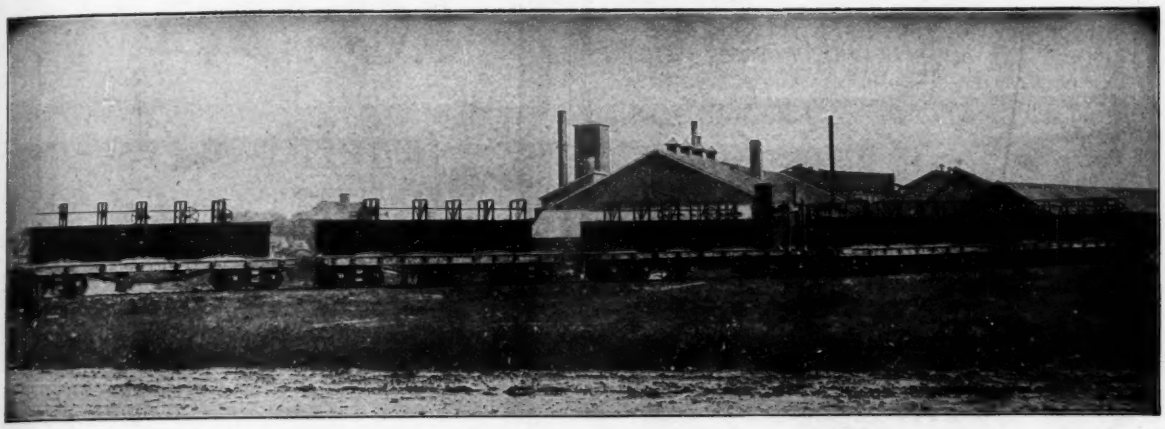

View of train at our factory loaded with Calcium System Tanks

Testimonials

CIRCLEVILLE, OHIO, September 19, 1904

DANIEL G. TRENCH & CO.,
CHICAGO, ILL.

Gentlemen:—In reply to yours of recent date as to what we think of the Calcium System will say, after using the system at our two plants that we think the Calcium System far ahead of the retorts as to ***uniformity in cook, safety against swells, ease of management, and prefer it in every way to the retort system.***

Yours truly,

[Signed] R. G. McCOY, Pres.

CIRCLEVILLE, OHIO, September 22, 1904

DANIEL G. TRENCH & CO.
CHICAGO, ILL.

Gentlemen:—In answer to your inquiry of recent date as to what our opinion is of the Calcium System, will say that this is our first season for the use of same, having heretofore been accustomed to the retort system; and as we are now just about through with the pack, will say that the system is so ***simple and easily managed that we did not have any worry that the corn would not all be properly processed,*** as you do with the old method of processing corn. The system is ***unform throughout and you are not bothered with swells*** as with the retort system of cooking; and from the experience we have had with it ***prefer it to any other we have used.***

Yours truly,

CENTRAL OHIO CANNING COMPANY,
[Signed] IRVIN F. SNYDER, Secretary

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